



SEQUENCE LISTING

<110> Seiki Motoharu

<120> DNA CODING FOR NOVEL POLIPEPTIDE

<130> 1241.18

<140> 09/806,232

<141> 2001-03-28

<150> PCT/JP99/05349

<151> 1999-09-29

<150> JP10-276258

<151> 1998-09-29

<150> JP10-291505

<151> 1998-09-29

<160> 28

<170> PatentIn Ver. 2.0

<210> 1

<211> 587

<212> PRT

<213> Mouse

<400> 1

Met Gly Arg Arg Pro Arg Gly Pro Gly Ser Pro Arg Gly Pro Gly Pro
1 5 10 15

Pro Arg Pro Gly Pro Gly Leu Pro Pro Leu Leu Leu Val Leu Ala Leu
20 25 30

Ala Ala His Gly Gly Cys Ala Ala Pro Ala Pro Arg Ala Glu Asp Leu
35 40 45

Ser Leu Gly Val Glu Trp Leu Ser Arg Phe Gly Tyr Leu Pro Pro Ala
50 55 60

Asp Pro Ala Ser Gly Gln Leu Gln Thr Gln Glu Glu Leu Ser Lys Ala
65 70 75 80

Ile Thr Ala Met Gln Gln Phe Gly Gly Leu Glu Thr Thr Gly Ile Leu
85 90 95

Asp Glu Ala Thr Leu Ala Leu Met Lys Thr Pro Arg Cys Ser Leu Pro
100 105 110

Asp Leu Pro Pro Gly Ala Gln Ser Arg Arg Lys Arg Gln Thr Pro Pro
115 120 125

Pro Thr Lys Trp Ser Lys Arg Asn Leu Ser Trp Arg Val Arg Thr Phe
130 135 140

Pro Arg Asp Ser Pro Leu Gly Arg Asp Thr Val Arg Ala Leu Met Tyr
145 150 155 160

Tyr Ala Leu Lys Val Trp Ser Asp Ile Thr Pro Leu Asn Phe His Glu
165 170 175

Val Ala Gly Asn Ala Ala Asp Ile Gln Ile Asp Phe Ser Lys Ala Asp

180							185					190				
His	Asn	Asp	Gly	Tyr	Pro	Phe	Asp	Gly	Pro	Gly	Gly	Thr	Val	Ala	His	
		195					200					205				
Ala	Phe	Phe	Pro	Gly	Asp	His	His	Thr	Ala	Gly	Asp	Thr	His	Phe	Asp	
	210					215					220					
Asp	Asp	Glu	Pro	Trp	Thr	Phe	Arg	Ser	Ser	Asp	Ala	His	Gly	Met	Asp	
225					230					235					240	
Leu	Phe	Ala	Val	Ala	Val	His	Glu	Phe	Gly	His	Ala	Ile	Gly	Leu	Ser	
				245					250					255		
His	Val	Ala	Ala	Pro	Ser	Ser	Ile	Met	Gln	Pro	Tyr	Tyr	Gln	Gly	Pro	
			260					265					270			
Val	Gly	Asp	Pro	Val	Arg	Tyr	Gly	Leu	Pro	Tyr	Glu	Asp	Arg	Val	Arg	
		275					280					285				
Val	Trp	Gln	Leu	Tyr	Gly	Val	Arg	Glu	Ser	Val	Ser	Pro	Thr	Ala	Gln	
	290					295					300					
Leu	Asp	Thr	Pro	Glu	Pro	Glu	Glu	Pro	Pro	Leu	Leu	Pro	Glu	Pro	Pro	
305					310					315					320	
Asn	Asn	Arg	Ser	Ser	Thr	Pro	Pro	Gln	Lys	Asp	Val	Pro	His	Arg	Cys	
				325					330					335		
Thr	Ala	His	Phe	Asp	Ala	Val	Ala	Gln	Ile	Arg	Gly	Glu	Ala	Phe	Phe	
			340					345					350			
Phe	Lys	Gly	Lys	Tyr	Phe	Trp	Arg	Leu	Thr	Arg	Asp	Arg	His	Leu	Val	
		355					360					365				
Ser	Leu	Gln	Pro	Ala	Gln	Met	His	Arg	Phe	Trp	Arg	Gly	Leu	Pro	Leu	
	370					375					380					
His	Leu	Asp	Ser	Val	Asp	Ala	Val	Tyr	Glu	Arg	Thr	Ser	Asp	His	Lys	
385					390					395					400	
Ile	Val	Phe	Phe	Lys	Gly	Asp	Arg	Tyr	Trp	Val	Phe	Lys	Asp	Asn	Asn	
				405					410					415		
Val	Glu	Glu	Gly	Tyr	Pro	Arg	Pro	Val	Ser	Asp	Phe	Ser	Leu	Pro	Pro	
			420					425					430			
Gly	Gly	Ile	Asp	Ala	Val	Phe	Ser	Trp	Ala	His	Asn	Asp	Arg	Thr	Tyr	
		435					440					445				
Phe	Phe	Lys	Asp	Gln	Leu	Tyr	Trp	Arg	Tyr	Asp	Asp	His	Thr	Arg	Arg	
	450					455					460					
Met	Asp	Pro	Gly	Tyr	Pro	Ala	Gln	Gly	Pro	Leu	Trp	Arg	Gly	Val	Pro	
465					470					475					480	
Ser	Met	Leu	Asp	Asp	Ala	Met	Arg	Trp	Ser	Asp	Gly	Ala	Ser	Tyr	Phe	
				485					490					495		
Phe	Arg	Gly	Gln	Glu	Tyr	Trp	Lys	Val	Leu	Asp	Gly	Glu	Leu	Glu	Ala	
			500					505					510			
Ala	Pro	Gly	Tyr	Pro	Gln	Ser	Thr	Ala	Arg	Asp	Trp	Leu	Val	Cys	Gly	
		515					520					525				

Glu Pro Leu Ala Asp Ala Glu Asp Val Gly Pro Gly Pro Gln Gly Arg
 530 535 540
 Ser Gly Ala Gln Asp Gly Leu Ala Val Cys Ser Cys Thr Ser Asp Ala
 545 550 555 560
 His Arg Leu Ala Leu Pro Ser Leu Leu Leu Thr Pro Leu Leu Trp
 565 570 575
 Gly Leu Trp Thr Ser Val Ser Ala Lys Ala Ser
 580 585

<210> 2
 <211> 606
 <212> PRT
 <213> Homo sapiens

<400> 2
 Met Arg Arg Arg Ala Ala Arg Gly Pro Gly Pro Pro Pro Pro Gly Pro
 1 5 10 15
 Gly Leu Ser Arg Leu Pro Leu Leu Pro Leu Leu Leu Leu Leu Leu
 20 25 30
 Ala Leu Gly Thr Arg Gly Gly Cys Ala Ala Pro Glu Pro Ala Arg Arg
 35 40 45
 Ala Glu Asp Leu Ser Leu Gly Val Glu Trp Leu Ser Arg Phe Gly Tyr
 50 55 60
 Leu Pro Pro Ala Asp Pro Thr Thr Gly Gln Leu Gln Thr Gln Glu Glu
 65 70 75 80
 Leu Ser Lys Ala Ile Thr Ala Met Gln Gln Phe Gly Gly Leu Glu Ala
 85 90 95
 Thr Gly Ile Leu Asp Glu Ala Thr Leu Ala Leu Met Lys Thr Pro Arg
 100 105 110
 Cys Ser Leu Pro Asp Leu Pro Val Leu Thr Gln Ala Arg Arg Arg Arg
 115 120 125
 Gln Ala Pro Ala Pro Thr Lys Trp Asn Lys Arg Asn Leu Ser Trp Arg
 130 135 140
 Val Arg Thr Phe Pro Arg Asp Ser Pro Leu Gly His Asp Thr Val Arg
 145 150 155 160
 Ala Leu Met Tyr Tyr Ala Leu Lys Val Trp Ser Asp Ile Ala Pro Leu
 165 170 175
 Asn Phe His Glu Val Ala Gly Ser Thr Ala Asp Ile Gln Ile Asp Phe
 180 185 190
 Ser Lys Ala Asp His Asn Asp Gly Tyr Pro Phe Asp Gly Pro Gly Gly
 195 200 205
 Thr Val Ala His Ala Phe Phe Pro Gly His His His Thr Ala Gly Asp
 210 215 220
 Thr His Phe Asp Asp Asp Glu Ala Trp Thr Phe Arg Ser Ser Asp Ala
 225 230 235 240

His Gly Met Asp Leu Phe Ala Val Ala Val His Glu Phe Gly His Ala
 245 250 255
 Ile Gly Leu Ser His Val Ala Ala Ala His Ser Ile Met Arg Pro Tyr
 260 265 270
 Tyr Gln Gly Pro Val Gly Asp Pro Leu Arg Tyr Gly Leu Pro Tyr Glu
 275 280 285
 Asp Lys Val Arg Val Trp Gln Leu Tyr Gly Val Arg Glu Ser Val Ser
 290 295 300
 Pro Thr Ala Gln Pro Glu Glu Pro Pro Leu Leu Pro Glu Pro Pro Asp
 305 310 315 320
 Asn Arg Ser Ser Ala Pro Pro Arg Lys Asp Val Pro His Arg Cys Ser
 325 330 335
 Thr His Phe Asp Ala Val Ala Gln Ile Arg Gly Glu Ala Phe Phe Phe
 340 345 350
 Lys Gly Lys Tyr Phe Trp Arg Leu Thr Arg Asp Arg His Leu Val Ser
 355 360 365
 Leu Gln Pro Ala Gln Met His Arg Phe Trp Arg Gly Leu Pro Leu His
 370 375 380
 Leu Asp Ser Val Asp Ala Val Tyr Glu Arg Thr Ser Asp His Lys Ile
 385 390 395 400
 Val Phe Phe Lys Gly Asp Arg Tyr Trp Val Phe Lys Asp Asn Asn Val
 405 410 415
 Glu Glu Gly Tyr Pro Arg Pro Val Ser Asp Phe Ser Leu Pro Pro Gly
 420 425 430
 Gly Ile Asp Ala Ala Phe Ser Trp Ala His Asn Asp Arg Thr Tyr Phe
 435 440 445
 Phe Lys Asp Gln Leu Tyr Trp Arg Tyr Asp Asp His Thr Arg His Met
 450 455 460
 Asp Pro Gly Tyr Pro Ala Gln Ser Pro Leu Trp Arg Gly Val Pro Ser
 465 470 475 480
 Thr Leu Asp Asp Ala Met Arg Trp Ser Asp Gly Ala Ser Tyr Phe Phe
 485 490 495
 Arg Gly Gln Glu Tyr Trp Lys Val Leu Asp Gly Glu Leu Glu Val Ala
 500 505 510
 Pro Gly Tyr Pro Gln Ser Thr Ala Arg Asp Trp Leu Val Cys Gly Asp
 515 520 525
 Ser Gln Ala Asp Gly Ser Val Ala Ala Gly Val Asp Ala Ala Glu Gly
 530 535 540
 Pro Arg Ala Pro Pro Gly Gln His Asp Gln Ser Arg Ser Glu Asp Gly
 545 550 555 560
 Tyr Glu Val Cys Ser Cys Thr Ser Gly Ala Ser Ser Pro Pro Gly Ala
 565 570 575
 Pro Gly Pro Leu Val Ala Ala Thr Met Leu Leu Leu Leu Pro Pro Leu

atc	gac	ttc	tcc	aag	gcc	gac	cac	aat	gac	ggc	tac	ccc	ttc	gat	ggc	688
Ile	Asp	Phe	Ser	Lys	Ala	Asp	His	Asn	Asp	Gly	Tyr	Pro	Phe	Asp	Gly	
				190					195					200		
cct	ggt	ggc	acg	gtg	gcc	cac	gca	ttc	ttc	cct	ggt	gac	cac	cac	acg	736
Pro	Gly	Gly	Thr	Val	Ala	His	Ala	Phe	Phe	Pro	Gly	Asp	His	His	Thr	
			205					210					215			
gca	ggg	gac	acc	cac	ttt	gat	gac	gat	gag	cca	tgg	acc	ttc	cgt	tcc	784
Ala	Gly	Asp	Thr	His	Phe	Asp	Asp	Asp	Glu	Pro	Trp	Thr	Phe	Arg	Ser	
		220					225					230				
tca	gat	gcc	cac	ggg	atg	gac	ctg	ttt	gca	gtg	gcc	gtc	cat	gag	ttt	832
Ser	Asp	Ala	His	Gly	Met	Asp	Leu	Phe	Ala	Val	Ala	Val	His	Glu	Phe	
	235					240					245					
ggt	cat	gcc	att	ggt	ctg	agc	cat	gtt	gcc	gcc	cca	agc	tcc	atc	atg	880
Gly	His	Ala	Ile	Gly	Leu	Ser	His	Val	Ala	Ala	Pro	Ser	Ser	Ile	Met	
250				255					260						265	
caa	ccg	tac	tac	cag	ggc	ccc	gtg	ggt	gac	ccc	gta	cgc	tat	gga	ctt	928
Gln	Pro	Tyr	Tyr	Gln	Gly	Pro	Val	Gly	Asp	Pro	Val	Arg	Tyr	Gly	Leu	
				270					275					280		
ccc	tat	gag	gac	agg	gtg	cgt	gtc	tgg	cag	ttg	tac	ggt	gtg	cgg	gaa	976
Pro	Tyr	Glu	Asp	Arg	Val	Arg	Val	Trp	Gln	Leu	Tyr	Gly	Val	Arg	Glu	
			285					290					295			
tcc	gtg	tcc	cct	act	gcc	cag	ctg	gat	acc	cca	gag	ccc	gag	gag	cca	1024
Ser	Val	Ser	Pro	Thr	Ala	Gln	Leu	Asp	Thr	Pro	Glu	Pro	Glu	Glu	Pro	
		300					305					310				
ccc	ctc	ctg	cca	gag	ccc	ccc	aac	aat	cgg	tct	agc	act	ccg	ccc	cag	1072
Pro	Leu	Leu	Pro	Glu	Pro	Pro	Asn	Asn	Arg	Ser	Ser	Thr	Pro	Pro	Gln	
	315					320					325					
aag	gac	gtg	cct	cac	agg	tgc	act	gcc	cac	ttt	gat	gct	gtg	gcc	cag	1120
Lys	Asp	Val	Pro	His	Arg	Cys	Thr	Ala	His	Phe	Asp	Ala	Val	Ala	Gln	
330					335					340				345		
att	cga	ggc	gaa	gca	ttc	ttt	ttc	aaa	ggc	aag	tat	ttc	tgg	agg	ctg	1168
Ile	Arg	Gly	Glu	Ala	Phe	Phe	Phe	Lys	Gly	Lys	Tyr	Phe	Trp	Arg	Leu	
				350					355					360		
acc	cgg	gac	cga	cac	ttg	gtg	tcg	ctg	cag	ccg	gct	caa	atg	cat	cgc	1216
Thr	Arg	Asp	Arg	His	Leu	Val	Ser	Leu	Gln	Pro	Ala	Gln	Met	His	Arg	
			365					370					375			
ttc	tgg	cgg	ggc	ctg	ccg	ctg	cac	ctg	gac	agt	gtg	gac	gcc	gtg	tat	1264
Phe	Trp	Arg	Gly	Leu	Pro	Leu	His	Leu	Asp	Ser	Val	Asp	Ala	Val	Tyr	
		380					385					390				
gag	cgt	acc	agt	gac	cac	aag	att	gtc	ttc	ttc	aaa	gga	gac	aga	tac	1312
Glu	Arg	Thr	Ser	Asp	His	Lys	Ile	Val	Phe	Phe	Lys	Gly	Asp	Arg	Tyr	
	395					400					405					
tgg	gtg	ttt	aag	gac	aac	aac	gta	gag	gaa	ggg	tac	ccg	cga	cct	gtc	1360
Trp	Val	Phe	Lys	Asp	Asn	Asn	Val	Glu	Glu	Gly	Tyr	Pro	Arg	Pro	Val	
410					415					420					425	
tcc	gac	ttc	agc	ctc	ccg	cca	ggt	ggc	atc	gat	gct	gtc	ttc	tcc	tgg	1408
Ser	Asp	Phe	Ser	Leu	Pro	Pro	Gly	Gly	Ile	Asp	Ala	Val	Phe	Ser	Trp	
				430					435					440		

gcc	cac	aat	gac	agg	act	tat	ttc	ttt	aag	gac	cag	ctg	tac	tgg	cgc	1456
Ala	His	Asn	Asp	Arg	Thr	Tyr	Phe	Phe	Lys	Asp	Gln	Leu	Tyr	Trp	Arg	
			445					450					455			
tat	gat	gac	cac	aca	cgg	cgc	atg	gac	cct	ggc	tac	cct	gcc	cag	gga	1504
Tyr	Asp	Asp	His	Thr	Arg	Arg	Met	Asp	Pro	Gly	Tyr	Pro	Ala	Gln	Gly	
		460					465					470				
ccc	ctg	tgg	aga	ggt	gtc	ccc	agc	atg	ttg	gat	gat	gcc	atg	cgc	tgg	1552
Pro	Leu	Trp	Arg	Gly	Val	Pro	Ser	Met	Leu	Asp	Asp	Ala	Met	Arg	Trp	
	475					480					485					
tct	gat	ggt	gca	tcc	tat	ttc	ttc	cga	ggc	cag	gag	tac	tgg	aaa	gtg	1600
Ser	Asp	Gly	Ala	Ser	Tyr	Phe	Phe	Arg	Gly	Gln	Glu	Tyr	Trp	Lys	Val	
490					495				500						505	
ctg	gat	ggc	gag	ctg	gaa	gca	gcc	ccc	ggg	tac	cca	cag	tct	aca	gcc	1648
Leu	Asp	Gly	Glu	Leu	Glu	Ala	Ala	Pro	Gly	Tyr	Pro	Gln	Ser	Thr	Ala	
				510					515					520		
cgc	gac	tgg	ctg	gta	tgc	ggt	gag	ccg	ctg	gcg	gat	gcg	gag	gat	gta	1696
Arg	Asp	Trp	Leu	Val	Cys	Gly	Glu	Pro	Leu	Ala	Asp	Ala	Glu	Asp	Val	
			525					530					535			
ggg	cct	gga	ccc	cag	ggc	cgc	agt	ggg	gcc	caa	gat	ggt	ctg	gca	gta	1744
Gly	Pro	Gly	Pro	Gln	Gly	Arg	Ser	Gly	Ala	Gln	Asp	Gly	Leu	Ala	Val	
		540					545					550				
tgt	tcc	tgc	act	tca	gac	gca	cac	agg	ttg	gca	ctg	cca	tct	ctg	ctg	1792
Cys	Ser	Cys	Thr	Ser	Asp	Ala	His	Arg	Leu	Ala	Leu	Pro	Ser	Leu	Leu	
	555					560					565					
ctt	ctg	act	cca	ctg	ctg	tgg	ggc	ctg	tgg	acc	tca	gtc	tct	gcc	aag	1840
Leu	Leu	Thr	Pro	Leu	Leu	Trp	Gly	Leu	Trp	Thr	Ser	Val	Ser	Ala	Lys	
570				575				580							585	
gca	tcc	tgagggcagt	gctagccttg	cggatcaagg	agccagggga	gcagggacac										1896
Ala	Ser															
actggccagt	actcagcagg	acttggtgctc	caagcttccg	gtccctcgct	ccttccttcc											1956
ttccttcctt	gaaccaggg	gtgctgtgcc	atctgctgga	gtggtctcca	gctgggacag											2016
gacgtccac	caagggcatc	catgcacacc	ttgcctacct	ggagcagcca	taggcagctc											2076
cccttcctc	ctctgcacat	cacgctgctt	cgttgcacct	tgccgggctg	cccaagccca											2136
gctgtcacia	ccccaggatg	ccttgctctgc	acctgagcgg	ctctgatggc	atctgcacgt											2196
gggctgatga	ggggcaaaca	ggggttcctc	gtggtatccg	tagggggccac	catgcctggt											2256
tcacaagtaa	gagagttgat	gccccgatgg	gggaacaggg	tgggagaaag	gcacctaccc											2316
agaagtctga	tccactgccg	tttgcagcag	ccagcgccgt	atctgctggg	ataggggacc											2376
agtcacactc	aggatctgcc	cacagattcc	cagatgctgg	caaggggcct	tgctccaact											2436
accaggagca	cagccacctc	tccccgtcct	agatagggtta	gccatggagg	ctgtgtcctg											2496
ttatctccct	ctctttggcc	aggagagcat	tgtgggtctc	cctcgggtgc	tggtgatggg											2556
ggtggggggc	gcccatagag	atatttcttc	atctgtcagt	accattgct	tcagcaagat											2616

```

gcccccatat agtttctggcc tgagaccctg cagcttggac tcacagctgt cccctcccca 2676
gctgcagaag ggcttctaac acctggaata aaggtgggcg ttcagttag ggaaggagga 2736
tggttggggg agcccagggt gatagcaagg gggagctgca gggataagtg tcagggtcct 2796
cggggagtca tgacaatggt accgcctaac ttggagatgt aggagctgtg cacggattgc 2856
ttctctgggt gacaaacctc catggtccag aaaggggctg aggttgaacc caagatgggt 2916
taatgagctc cagaaaggaa cagccaagtt caaaggttct gggacaagac gggcctgagg 2976
aacagggcca cccaggtagg cgtggctgta gggtaagcag tttctgtcat tgggcacgag 3036
atgaaaatta gtgatcacac gcacataccc cctcccca ctggcccggg cccatctcag 3096
gtaagaaagg cttctgtcta cccaggcca ggtttgagt ttgtcaggat gagtgagcag 3156
ctagcggggc ctaagtttct accctccatt tccaagcct ggccacacc tagaccctg 3216
tcagactagg caggacagag tcaggggtag gggcatctga ggtttccctg tcttggaagc 3276
cacctactc tgccctcata tcaaagcacg ctcctatgat gtcccatgtt gtccaccagc 3336
ctgcaggaca cagatgtcct atacagcaac agggaaagtc caaaaatctt tgtcacatag 3396
cactgaaaac cagacccgca ggctggagct gtctagatgc tgggtgtcaca ctcattttaa 3456
aacccaaact cttaataaaa attttgtaca ctggaaaaaa aaaaaaaaaa aaaaaaaaaa 3516
a                                                                 3517

```

```

<210> 4
<211> 2438
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> CDS
<222> (100)..(1917)

```

```

<400> 4
ccggcggggg cgccgcggag agcggagggc gccgggctgc ggaacgcgaa gcggagggcg 60
cgggaccctg cacgccgcc gcgggccc atg cgg cgc cgc gca 114
                               Met Arg Arg Arg Ala
                               1      5

gcc cgg gga ccc ggc ccg ccg ccc cca ggg ccc gga ctc tcg cgg ctg 162
Ala Arg Gly Pro Gly Pro Pro Pro Pro Gly Pro Gly Leu Ser Arg Leu
                        10      15      20

ccg ctg ctg ccg ctg ccg ctg ctg ctg ctg ctg gcg ctg ggg acc cgc 210
Pro Leu Leu Pro Leu Pro Leu Leu Leu Leu Leu Ala Leu Gly Thr Arg
                        25      30      35

ggg ggc tgc gcc gcg ccg gaa ccc gcg cgg cgc gcc gag gac ctc agc 258
Gly Gly Cys Ala Ala Pro Glu Pro Ala Arg Arg Ala Glu Asp Leu Ser
                        40      45      50

ctg gga gtg gag tgg cta agc agg ttc ggt tac ctg ccc ccg gct gac 306
Leu Gly Val Glu Trp Leu Ser Arg Phe Gly Tyr Leu Pro Pro Ala Asp
                        55      60      65

```


ccc Pro 70	aca Thr	aca Thr	ggg Gly	cag Gln	ctg Leu 75	cag Gln	acg Thr	caa Gln	gag Glu	gag Glu 80	ctg Leu	tct Ser	aag Lys	gcc Ala	atc Ile 85	354
aca Thr	gcc Ala	atg Met	cag Gln	cag Gln 90	ttt Phe	ggg Gly	ggc Gly	ctg Leu	gag Glu 95	gcc Ala	acc Thr	ggc Gly	atc Ile	ctg Leu 100	gac Asp	402
gag Glu	gcc Ala	acc Thr	ctg Leu 105	gcc Ala	ctg Leu	atg Met	aaa Lys	acc Thr 110	cca Pro	cgc Arg	tgc Cys	tcc Ser	ctg Leu 115	cca Pro	gac Asp	450
ctc Leu	cct Pro	gtc Val 120	ctg Leu	acc Thr	cag Gln	gct Ala	cgc Arg 125	agg Arg	aga Arg	cgc Arg	cag Gln	gct Ala 130	cca Pro	gcc Ala	ccc Pro	498
acc Thr	aag Lys 135	tgg Trp	aac Asn	aag Lys	agg Arg	aac Asn 140	ctg Leu	tcg Ser	tgg Trp	agg Arg	gtc Val 145	cgg Arg	acg Thr	ttc Phe	cca Pro	546
cgg Arg 150	gac Asp	tca Ser	cca Pro	ctg Leu	ggg Gly 155	cac His	gac Asp	acg Thr	gtg Val	cgt Arg 160	gca Ala	ctc Leu	atg Met	tac Tyr	tac Tyr 165	594
gcc Ala	ctc Leu	aag Lys	gtc Val	tgg Trp 170	agc Ser	gac Asp	att Ile	gcg Ala	ccc Pro 175	ctg Leu	aac Asn	ttc Phe	cac His	gag Glu 180	gtg Val	642
gcg Ala	ggc Gly	agc Ser	acc Thr 185	gcc Ala	gac Asp	atc Ile	cag Gln	atc Ile 190	gac Asp	ttc Phe	tcc Ser	aag Lys	gcc Ala 195	gac Asp	cat His	690
aac Asn	gac Asp	ggc Gly 200	tac Tyr	ccc Pro	ttc Phe	gac Asp	ggc Gly 205	ccc Pro	ggc Gly	ggc Gly	acc Thr	gtg Val 210	gcc Ala	cac His	gcc Ala	738
ttc Phe 215	ttc Phe	ccc Pro	ggc Gly	cac His	cac His	cac His 220	acc Thr	gcc Ala	ggg Gly	gac Asp	acc Thr 225	cac His	ttt Phe	gac Asp	gat Asp	786
gac Asp 230	gag Glu	gcc Ala	tgg Trp	acc Thr	ttc Phe 235	cgc Arg	tcc Ser	tcg Ser	gat Asp	gcc Ala 240	cac His	ggg Gly	atg Met	gac Asp	ctg Leu 245	834
ttt Phe	gca Ala	gtg Val	gct Ala	gtc Val 250	cac His	gag Glu	ttt Phe	ggc Gly 255	cac His	gcc Ala	att Ile	ggg Gly	tta Leu	agc Ser 260	cat His	882
gtg Val	gcc Ala	gct Ala	gca Ala 265	cac His	tcc Ser	atc Ile	atg Met	cgg Arg 270	ccg Pro	tac Tyr	tac Tyr	cag Gln	ggc Gly 275	ccg Pro	gtg Val	930
ggg Gly	gac Asp	ccg Pro 280	ctg Leu	cgc Arg	tac Tyr	ggg Gly	ctc Leu 285	ccc Pro	tac Tyr	gag Glu	gac Asp	aag Lys 290	gtg Val	cgc Arg	gtc Val	978
tgg Trp 295	cag Gln	ctg Leu	tac Tyr	ggg Gly	gtg Val	cgg Arg 300	gag Glu	tct Ser	gtg Val	tct Ser	ccc Pro 305	acg Thr	gcg Ala	cag Gln	ccc Pro	1026
gag Glu 310	gag Glu	cct Pro	ccc Pro	ctg Leu	ctg Leu 315	ccg Pro	gag Glu	ccc Pro	cca Pro	gac Asp 320	aac Asn	cgg Arg	tcc Ser	agc Ser	gcc Ala 325	1074

ccg	ccc	agg	aag	gac	gtg	ccc	cac	aga	tgc	agc	act	cac	ttt	gac	gcg	1122
Pro	Pro	Arg	Lys	Asp	Val	Pro	His	Arg	Cys	Ser	Thr	His	Phe	Asp	Ala	
				330					335					340		
gtg	gcc	cag	atc	cgg	ggg	gaa	gct	ttc	ttc	ttc	aaa	ggc	aag	tac	ttc	1170
Val	Ala	Gln	Ile	Arg	Gly	Glu	Ala	Phe	Phe	Phe	Lys	Gly	Lys	Tyr	Phe	
			345					350					355			
tgg	cgg	ctg	acg	cgg	gac	cgg	cac	ctg	gtg	tcc	ctg	cag	ccg	gca	cag	1218
Trp	Arg	Leu	Thr	Arg	Asp	Arg	His	Leu	Val	Ser	Leu	Gln	Pro	Ala	Gln	
		360					365					370				
atg	cac	cgc	ttc	tgg	cgg	ggc	ctg	ccg	ctg	cac	ctg	gac	agc	gtg	gac	1266
Met	His	Arg	Phe	Trp	Arg	Gly	Leu	Pro	Leu	His	Leu	Asp	Ser	Val	Asp	
	375					380					385					
gcc	gtg	tac	gag	cgc	acc	agc	gac	cac	aag	atc	gtc	ttc	ttt	aaa	gga	1314
Ala	Val	Tyr	Glu	Arg	Thr	Ser	Asp	His	Lys	Ile	Val	Phe	Phe	Lys	Gly	
390					395					400					405	
gac	agg	tac	tgg	gtg	ttc	aag	gac	aat	aac	gta	gag	gaa	gga	tac	ccg	1362
Asp	Arg	Tyr	Trp	Val	Phe	Lys	Asp	Asn	Asn	Val	Glu	Glu	Gly	Tyr	Pro	
				410					415					420		
cgc	ccc	gtc	tcc	gac	ttc	agc	ctc	ccg	cct	ggc	ggc	atc	gac	gct	gcc	1410
Arg	Pro	Val	Ser	Asp	Phe	Ser	Leu	Pro	Pro	Gly	Gly	Ile	Asp	Ala	Ala	
			425					430					435			
ttc	tcc	tgg	gcc	cac	aat	gac	agg	act	tat	ttc	ttt	aag	gac	cag	ctg	1458
Phe	Ser	Trp	Ala	His	Asn	Asp	Arg	Thr	Tyr	Phe	Phe	Lys	Asp	Gln	Leu	
		440					445					450				
tac	tgg	cgc	tac	gat	gac	cac	acg	agg	cac	atg	gac	ccc	ggc	tac	ccc	1506
Tyr	Trp	Arg	Tyr	Asp	Asp	His	Thr	Arg	His	Met	Asp	Pro	Gly	Tyr	Pro	
	455					460					465					
gcc	cag	agc	ccc	ctg	tgg	agg	ggg	gtc	ccc	agc	acg	ctg	gac	gac	gcc	1554
Ala	Gln	Ser	Pro	Leu	Trp	Arg	Gly	Val	Pro	Ser	Thr	Leu	Asp	Asp	Ala	
470					475				480						485	
atg	cgc	tgg	tcc	gac	ggg	gcc	tcc	tac	ttc	ttc	cgt	ggc	cag	gag	tac	1602
Met	Arg	Trp	Ser	Asp	Gly	Ala	Ser	Tyr	Phe	Phe	Arg	Gly	Gln	Glu	Tyr	
				490					495					500		
tgg	aaa	gtg	ctg	gat	ggc	gag	ctg	gag	gtg	gca	ccc	ggg	tac	cca	cag	1650
Trp	Lys	Val	Leu	Asp	Gly	Glu	Leu	Glu	Val	Ala	Pro	Gly	Tyr	Pro	Gln	
			505					510					515			
tcc	acg	gcc	cgg	gac	tgg	ctg	gtg	tgt	gga	gac	tca	cag	gcc	gat	gga	1698
Ser	Thr	Ala	Arg	Asp	Trp	Leu	Val	Cys	Gly	Asp	Ser	Gln	Ala	Asp	Gly	
		520					525					530				
tct	gtg	gct	gcg	ggc	gtg	gac	gcg	gca	gag	ggg	ccc	cgc	gcc	cct	cca	1746
Ser	Val	Ala	Ala	Gly	Val	Asp	Ala	Ala	Glu	Gly	Pro	Arg	Ala	Pro	Pro	
	535					540					545					
gga	caa	cat	gac	cag	agc	cgc	tcg	gag	gac	ggg	tac	gag	gtc	tgc	tca	1794
Gly	Gln	His	Asp	Gln	Ser	Arg	Ser	Glu	Asp	Gly	Tyr	Glu	Val	Cys	Ser	
550					555					560					565	
tgc	acc	tct	ggg	gca	tcc	tct	ccc	ccg	ggg	gcc	cca	ggc	cca	ctg	gtg	1842
Cys	Thr	Ser	Gly	Ala	Ser	Ser	Pro	Pro	Gly	Ala	Pro	Gly	Pro	Leu	Val	
				570					575					580		

gct gcc acc atg ctg ctg ctg ctg ccg cca ctg tca cca ggc gcc ctg 1890
 Ala Ala Thr Met Leu Leu Leu Leu Pro Pro Leu Ser Pro Gly Ala Leu
 585 590 595

tgg aca gcg gcc cag gcc ctg acg cta tgacacacag cgcgagccca 1937
 Trp Thr Ala Ala Gln Ala Leu Thr Leu
 600 605

tgagaggaca gaggcggtgg gacagcctgg ccacagaggg caaggactgt gccggagtcc 1997
 ctgggggagg tgctggcgcg ggatgaggac gggccaccct ggcaccggaa ggccagcaga 2057
 gggcacggcc cgccagggct gggcaggctc aggtggcaag gacggagctg tcccctagtg 2117
 agggactgtg ttgactgacg agccgagggg tggccgctcc agaaggggtgc ccagtcaggc 2177
 cgcaccgccg ccagcctcct ccggccctgg agggagcatc tcgggctggg ggcccacccc 2237
 tctctgtgcc ggcgccacca accccaccca cactgctgcc tgggtgctccc gccggcccac 2297
 agggcctccg tccccaggtc cccagtgggg cagccctccc cacagacgag cccccacat 2357
 ggtgccgcgg cacgtccccc ctgtgacgcg ttccagacca acatgacctc tccctgcttt 2417
 gtaaaaaaaaa a 2438

<210> 5
 <211> 618
 <212> PRT
 <213> Mouse

<400> 5
 Met Pro Arg Ser Arg Gly Gly Arg Ala Ala Pro Gly Gln Ala Ser Arg
 1 5 10 15
 Trp Ser Gly Trp Arg Ala Pro Gly Arg Leu Leu Pro Leu Leu Pro Ala
 20 25 30
 Leu Cys Cys Leu Ala Ala Ala Ala Gly Ala Gly Lys Pro Ala Gly Ala
 35 40 45
 Asp Ala Pro Phe Ala Gly Gln Asn Trp Leu Lys Ser Tyr Gly Tyr Leu
 50 55 60
 Leu Pro Tyr Glu Ser Arg Ala Ser Ala Leu His Ser Gly Lys Ala Leu
 65 70 75 80
 Gln Ser Ala Val Ser Thr Met Gln Gln Phe Tyr Gly Ile Pro Val Thr
 85 90 95
 Gly Val Leu Asp Gln Thr Thr Ile Glu Trp Met Lys Lys Pro Arg Cys
 100 105 110
 Gly Val Pro Asp His Pro His Leu Ser Arg Arg Arg Arg Asn Lys Arg
 115 120 125
 Tyr Ala Leu Thr Gly Gln Lys Trp Arg Gln Lys His Ile Thr Tyr Ser
 130 135 140
 Ile His Asn Tyr Thr Pro Lys Val Gly Glu Leu Asp Thr Arg Lys Ala
 145 150 155 160
 Ile Arg Gln Ala Phe Asp Val Trp Gln Lys Val Thr Pro Leu Thr Phe

				165					170					175			
Glu	Glu	Val	Pro	Tyr	His	Glu	Ile	Lys	Ser	Asp	Arg	Lys	Glu	Ala	Asp		
			180					185					190				
Ile	Met	Ile	Phe	Phe	Ala	Ser	Gly	Phe	His	Gly	Asp	Ser	Ser	Pro	Phe		
		195					200					205					
Asp	Gly	Glu	Gly	Gly	Phe	Leu	Ala	His	Ala	Tyr	Phe	Pro	Gly	Pro	Gly		
	210					215					220						
Ile	Gly	Gly	Asp	Thr	His	Phe	Asp	Ser	Asp	Glu	Pro	Trp	Thr	Leu	Gly		
225					230					235					240		
Asn	Ala	Asn	His	Asp	Gly	Asn	Asp	Leu	Phe	Leu	Val	Ala	Val	His	Glu		
				245					250					255			
Leu	Gly	His	Ala	Leu	Gly	Leu	Glu	His	Ser	Asn	Asp	Pro	Ser	Ala	Ile		
			260					265					270				
Met	Ala	Pro	Phe	Tyr	Gln	Tyr	Met	Glu	Thr	His	Asn	Phe	Lys	Leu	Pro		
		275					280					285					
Gln	Asp	Asp	Leu	Gln	Gly	Ile	Gln	Lys	Ile	Tyr	Gly	Pro	Pro	Ala	Glu		
	290					295					300						
Pro	Leu	Glu	Pro	Thr	Arg	Pro	Leu	His	Thr	Leu	Pro	Val	Arg	Arg	Ile		
305					310					315					320		
His	Ser	Pro	Ser	Glu	Arg	Lys	His	Glu	Arg	His	Pro	Arg	Pro	Pro	Arg		
				325					330					335			
Pro	Pro	Leu	Gly	Asp	Arg	Pro	Ser	Thr	Pro	Gly	Ala	Lys	Pro	Asn	Ile		
			340					345					350				
Cys	Asp	Gly	Asn	Phe	Asn	Thr	Val	Ala	Leu	Phe	Arg	Gly	Glu	Met	Phe		
		355					360					365					
Val	Phe	Lys	Asp	Arg	Trp	Phe	Trp	Arg	Leu	Arg	Asn	Asn	Arg	Val	Gln		
	370					375					380						
Glu	Gly	Tyr	Pro	Met	Gln	Ile	Glu	Gln	Phe	Trp	Lys	Gly	Leu	Pro	Ala		
385					390					395					400		
Arg	Ile	Asp	Ala	Ala	Tyr	Glu	Arg	Ala	Asp	Gly	Arg	Phe	Val	Phe	Phe		
				405					410					415			
Lys	Gly	Asp	Lys	Tyr	Trp	Val	Phe	Lys	Glu	Val	Thr	Val	Glu	Pro	Gly		
			420					425					430				
Tyr	Pro	His	Ser	Leu	Gly	Glu	Leu	Gly	Ser	Cys	Leu	Pro	Arg	Glu	Gly		
		435					440					445					
Ile	Asp	Thr	Ala	Leu	Arg	Trp	Glu	Pro	Val	Gly	Lys	Thr	Tyr	Phe	Phe		
	450					455					460						
Lys	Gly	Glu	Arg	Tyr	Trp	Arg	Tyr	Ser	Glu	Glu	Arg	Arg	Ala	Thr	Asp		
465					470					475					480		
Pro	Gly	Tyr	Pro	Lys	Pro	Ile	Thr	Val	Trp	Lys	Gly	Ile	Pro	Gln	Ala		
				485					490					495			
Pro	Gln	Gly	Ala	Phe	Ile	Ser	Lys	Glu	Gly	Tyr	Tyr	Thr	Tyr	Phe	Tyr		
			500					505					510				

Lys Gly Arg Asp Tyr Trp Lys Phe Asp Asn Gln Lys Leu Ser Val Glu
 515 520 525
 Pro Gly Tyr Pro Arg Asn Ile Leu Arg Asp Trp Met Gly Cys Lys Gln
 530 535 540
 Lys Glu Val Glu Arg Arg Lys Glu Arg Arg Leu Pro Gln Asp Asp Val
 545 550 555 560
 Asp Ile Met Val Thr Ile Asp Asp Val Pro Gly Ser Val Asn Ala Val
 565 570 575
 Ala Val Val Val Pro Cys Thr Leu Ser Leu Cys Leu Leu Val Leu Leu
 580 585 590
 Tyr Thr Ile Phe Gln Phe Lys Asn Lys Ala Gly Pro Gln Pro Val Thr
 595 600 605
 Tyr Tyr Lys Arg Pro Val Gln Glu Trp Val
 610 615

<210> 6
 <211> 645
 <212> PRT
 <213> Homo sapiens

<400> 6
 Met Pro Arg Ser Arg Gly Gly Arg Ala Ala Pro Gly Pro Pro Pro Pro
 1 5 10 15
 Pro Pro Pro Pro Gly Gln Ala Pro Arg Trp Ser Arg Trp Arg Val Pro
 20 25 30
 Gly Arg Leu Leu Leu Leu Leu Leu Pro Ala Leu Cys Cys Leu Pro Gly
 35 40 45
 Ala Ala Arg Ala Ala Ala Ala Ala Ala Gly Ala Gly Asn Arg Ala Ala
 50 55 60
 Val Ala Val Ala Val Ala Arg Ala Asp Glu Ala Glu Ala Pro Phe Ala
 65 70 75 80
 Gly Gln Asn Trp Leu Lys Ser Tyr Gly Tyr Leu Leu Pro Tyr Asp Ser
 85 90 95
 Arg Ala Ser Ala Leu His Ser Ala Lys Ala Leu Gln Ser Ala Val Ser
 100 105 110
 Thr Met Gln Gln Phe Tyr Gly Ile Pro Val Thr Gly Val Leu Asp Gln
 115 120 125
 Thr Thr Ile Glu Trp Met Lys Lys Pro Arg Cys Gly Val Pro Asp His
 130 135 140
 Pro His Leu Ser Arg Arg Arg Arg Asn Lys Arg Tyr Ala Leu Thr Gly
 145 150 155 160
 Gln Lys Trp Arg Gln Lys His Ile Thr Tyr Ser Ile His Asn Tyr Thr
 165 170 175
 Pro Lys Val Gly Glu Leu Asp Thr Arg Lys Ala Ile Arg Gln Ala Phe
 180 185 190

Asp	Val	Trp	Gln	Lys	Val	Thr	Pro	Leu	Thr	Phe	Glu	Glu	Val	Pro	Tyr
		195					200					205			
His	Glu	Ile	Lys	Ser	Asp	Arg	Lys	Glu	Ala	Asp	Ile	Met	Ile	Phe	Phe
	210					215					220				
Ala	Ser	Gly	Phe	His	Gly	Asp	Ser	Ser	Pro	Phe	Asp	Gly	Glu	Gly	Gly
225					230					235					240
Phe	Leu	Ala	His	Ala	Tyr	Phe	Pro	Gly	Pro	Gly	Ile	Gly	Gly	Asp	Thr
				245				250						255	
His	Phe	Asp	Ser	Asp	Glu	Pro	Trp	Thr	Leu	Gly	Asn	Ala	Asn	His	Asp
			260					265					270		
Gly	Asn	Asp	Leu	Phe	Leu	Val	Ala	Val	His	Glu	Leu	Gly	His	Ala	Leu
		275					280					285			
Gly	Leu	Glu	His	Ser	Ser	Asp	Pro	Ser	Ala	Ile	Met	Ala	Pro	Phe	Tyr
	290					295					300				
Gln	Tyr	Met	Glu	Thr	His	Asn	Phe	Lys	Leu	Pro	Gln	Asp	Asp	Leu	Gln
305					310					315					320
Gly	Ile	Gln	Lys	Ile	Tyr	Gly	Pro	Pro	Ala	Glu	Pro	Leu	Glu	Pro	Thr
				325					330					335	
Arg	Pro	Leu	Pro	Thr	Leu	Pro	Val	Arg	Arg	Ile	His	Ser	Pro	Ser	Glu
			340					345					350		
Arg	Lys	His	Glu	Arg	Gln	Pro	Arg	Pro	Pro	Arg	Pro	Pro	Leu	Gly	Asp
		355					360					365			
Arg	Pro	Ser	Thr	Pro	Gly	Thr	Lys	Pro	Asn	Ile	Cys	Asp	Gly	Asn	Phe
	370					375					380				
Asn	Thr	Val	Ala	Leu	Phe	Arg	Gly	Glu	Met	Phe	Val	Phe	Lys	Asp	Arg
385					390					395					400
Trp	Phe	Trp	Arg	Leu	Arg	Asn	Asn	Arg	Val	Gln	Glu	Gly	Tyr	Pro	Met
				405					410					415	
Gln	Ile	Glu	Gln	Phe	Trp	Lys	Gly	Leu	Pro	Ala	Arg	Ile	Asp	Ala	Ala
			420					425					430		
Tyr	Glu	Arg	Ala	Asp	Gly	Arg	Phe	Val	Phe	Phe	Lys	Gly	Asp	Lys	Tyr
		435					440					445			
Trp	Val	Phe	Lys	Glu	Val	Thr	Val	Glu	Pro	Gly	Tyr	Pro	His	Ser	Leu
	450					455					460				
Gly	Glu	Leu	Gly	Ser	Cys	Leu	Pro	Arg	Glu	Gly	Ile	Asp	Thr	Ala	Leu
465					470					475					480
Arg	Trp	Glu	Pro	Val	Gly	Lys	Thr	Tyr	Phe	Phe	Lys	Gly	Glu	Arg	Tyr
				485					490					495	
Trp	Arg	Tyr	Ser	Glu	Glu	Arg	Arg	Ala	Thr	Asp	Pro	Gly	Tyr	Pro	Lys
			500					505					510		
Pro	Ile	Thr	Val	Trp	Lys	Gly	Ile	Pro	Gln	Ala	Pro	Gln	Gly	Ala	Phe
		515					520					525			
Ile	Ser	Lys	Glu	Gly	Tyr	Tyr	Thr	Tyr	Phe	Tyr	Lys	Gly	Arg	Asp	Tyr

530		535		540
Trp 545	Lys Phe Asp Asn Gln 550	Lys Leu Ser Val	Glu 555	Pro Gly Tyr Pro Arg 560
Asn Ile Leu Arg Asp 565	Trp Met Gly Cys Asn 570	Gln Lys Glu Val	Glu 575	Arg
Arg Lys Glu Arg 580	Arg Leu Pro Gln Asp 585	Val Asp Ile Met 590	Val Thr	
Ile Asn Asp 595	Val Pro Gly Ser Val 600	Asn Ala Val Ala 605	Val Ile Pro	
Cys Ile Leu Ser Leu Cys Ile 615	Leu Val Leu Val Tyr 620	Thr Ile Phe Gln		
Phe 625	Lys Asn Lys Thr Gly 630	Pro Gln Pro Val Thr 635	Tyr Tyr Lys Arg Pro 640	
Val Gln Glu Trp Val 645				

<210> 7
 <211> 4263
 <212> DNA
 <213> Mouse

<220>
 <221> CDS
 <222> (75)..(1928)

<400> 7
 gcgggaggac ccggccggag ccgccgccgc cgccgccgcc atcgagccg ggcggccggg 60
 ccccgccgc cggg atg ccg agg agc cgg ggc ggc cgc gct gcg ccg ggc 110
 Met Pro Arg Ser Arg Gly Gly Arg Ala Ala Pro Gly
 1 5 10
 cag gcc tcg cgc tgg agc ggc tgg cgg gcc ccg ggg cgg ctg ctg ccg 158
 Gln Ala Ser Arg Trp Ser Gly Trp Arg Ala Pro Gly Arg Leu Leu Pro
 15 20 25
 ctg ctg ccc gcg ctc tgc tgc ctc gcg gcg gcg gcg ggg gcc ggg aag 206
 Leu Leu Pro Ala Leu Cys Cys Leu Ala Ala Ala Ala Gly Ala Gly Lys
 30 35 40
 ccg gcc ggg gcg gac gcg ccc ttc gct ggg cag aac tgg tta aaa tca 254
 Pro Ala Gly Ala Asp Ala Pro Phe Ala Gly Gln Asn Trp Leu Lys Ser
 45 50 55 60
 tat ggc tat ctg ctt ccc tat gag tcg cgg gca tct gcg ttg cat tct 302
 Tyr Gly Tyr Leu Leu Pro Tyr Glu Ser Arg Ala Ser Ala Leu His Ser
 65 70 75
 ggg aag gcc ttg cag tcc gcg gtc tcc act atg cag cag ttt tac ggg 350
 Gly Lys Ala Leu Gln Ser Ala Val Ser Thr Met Gln Gln Phe Tyr Gly
 80 85 90
 atc cca gtc acc ggt gtg ttg gat cag aca aca atc gag tgg atg aag 398
 Ile Pro Val Thr Gly Val Leu Asp Gln Thr Thr Ile Glu Trp Met Lys
 95 100 105
 aaa cct cga tgt ggc gtc cct gat cat ccc cac ttg agc agg agg agg 446

Lys	Pro	Arg	Cys	Gly	Val	Pro	Asp	His	Pro	His	Leu	Ser	Arg	Arg	Arg	
110	115										120					
aga	aat	aag	cga	tat	gcc	cta	act	gga	cag	aag	tgg	agg	cag	aaa	cac	494
Arg	Asn	Lys	Arg	Tyr	Ala	Leu	Thr	Gly	Gln	Lys	Trp	Arg	Gln	Lys	His	
125					130					135					140	
atc	acc	tac	agc	att	cac	aat	tat	acc	cca	aag	gtg	ggt	gag	ctg	gac	542
Ile	Thr	Tyr	Ser	Ile	His	Asn	Tyr	Thr	Pro	Lys	Val	Gly	Glu	Leu	Asp	
				145					150					155		
aca	cgg	aag	gct	att	cgt	cag	gct	ttc	gat	gtg	tgg	cag	aag	gtg	act	590
Thr	Arg	Lys	Ala	Ile	Arg	Gln	Ala	Phe	Asp	Val	Trp	Gln	Lys	Val	Thr	
			160					165					170			
cca	ctg	acc	ttt	gaa	gag	gtg	cca	tac	cat	gag	atc	aaa	agt	gac	cgg	638
Pro	Leu	Thr	Phe	Glu	Glu	Val	Pro	Tyr	His	Glu	Ile	Lys	Ser	Asp	Arg	
		175					180					185				
aag	gag	gca	gac	atc	atg	atc	ttc	ttt	gct	tct	ggt	ttc	cat	ggt	gac	686
Lys	Glu	Ala	Asp	Ile	Met	Ile	Phe	Phe	Ala	Ser	Gly	Phe	His	Gly	Asp	
	190					195					200					
agc	tcc	cca	ttt	gat	ggg	gaa	ggg	gga	ttc	cta	gcc	cat	gcc	tac	ttt	734
Ser	Ser	Pro	Phe	Asp	Gly	Glu	Gly	Gly	Phe	Leu	Ala	His	Ala	Tyr	Phe	
205					210					215					220	
cct	ggc	cca	ggg	atc	gga	gga	gac	act	cac	ttt	gat	tca	gat	gaa	ccc	782
Pro	Gly	Pro	Gly	Ile	Gly	Gly	Asp	Thr	His	Phe	Asp	Ser	Asp	Glu	Pro	
				225					230					235		
tgg	acg	cta	gga	aat	gcc	aac	cat	gat	ggc	aat	gac	ctc	ttc	ctg	gtg	830
Trp	Thr	Leu	Gly	Asn	Ala	Asn	His	Asp	Gly	Asn	Asp	Leu	Phe	Leu	Val	
			240					245					250			
gcc	gtg	cat	gaa	ctg	ggc	cat	gca	ctg	ggc	ttg	gag	cac	tct	aat	gac	878
Ala	Val	His	Glu	Leu	Gly	His	Ala	Leu	Gly	Leu	Glu	His	Ser	Asn	Asp	
		255					260					265				
ccc	agt	gct	atc	atg	gct	ccc	ttc	tac	caa	tac	atg	gag	aca	cac	aac	926
Pro	Ser	Ala	Ile	Met	Ala	Pro	Phe	Tyr	Gln	Tyr	Met	Glu	Thr	His	Asn	
	270					275					280					
ttc	aag	cta	ccg	cag	gac	gat	ctc	cag	ggc	atc	cag	aag	att	tac	gga	974
Phe	Lys	Leu	Pro	Gln	Asp	Asp	Leu	Gln	Gly	Ile	Gln	Lys	Ile	Tyr	Gly	
285					290					295					300	
ccc	cca	gct	gag	cct	ctg	gag	ccc	aca	agg	ccc	ctc	cat	aca	ctc	ccg	1022
Pro	Pro	Ala	Glu	Pro	Leu	Glu	Pro	Thr	Arg	Pro	Leu	His	Thr	Leu	Pro	
				305					310					315		
gtc	cgc	agg	atc	cac	tcg	ccg	tct	gag	agg	aag	cac	gag	cgg	cac	cca	1070
Val	Arg	Arg	Ile	His	Ser	Pro	Ser	Glu	Arg	Lys	His	Glu	Arg	His	Pro	
			320					325					330			
agg	ccc	cca	cgg	ccg	ccc	ctt	ggg	gac	cgg	cca	tcc	act	cca	ggt	gcc	1118
Arg	Pro	Pro	Arg	Pro	Pro	Leu	Gly	Asp	Arg	Pro	Ser	Thr	Pro	Gly	Ala	
		335					340					345				
aaa	ccc	aac	atc	tgc	gat	ggc	aac	ttc	aac	aca	gtg	gcc	ctc	ttc	cga	1166
Lys	Pro	Asn	Ile	Cys	Asp	Gly	Asn	Phe	Asn	Thr	Val	Ala	Leu	Phe	Arg	
	350					355					360					
ggg	gag	atg	ttt	gtg	ttc	aag	gat	cgc	tgg	ttc	tgg	cgc	ctg	cgc	aat	1214

Gly 365	Glu	Met	Phe	Val	Phe 370	Lys	Asp	Arg	Trp	Phe 375	Trp	Arg	Leu	Arg	Asn 380	
aac Asn	cgg Arg	gtg Val	cag Gln	gaa Glu 385	ggc Gly	tac Tyr	ccc Pro	atg Met	cag Gln 390	atc Ile	gaa Glu	cag Gln	ttc Phe	tgg Trp 395	aag Lys	1262
ggc Gly	ctg Leu	ccc Pro	gcc Ala 400	cgc Arg	ata Ile	gac Asp	gca Ala 405	gcc Ala 405	tat Tyr	gaa Glu	aga Arg	gct Ala 410	gac Asp 410	ggg Gly	aga Arg	1310
ttc Phe	gtc Val	ttc Phe 415	ttc Phe	aaa Lys	gga Gly	gac Asp 420	aag Lys 420	tac Tyr	tgg Trp	gtt Val	ttc Phe 425	aaa Lys 425	gaa Glu	gtg Val	acg Thr	1358
gtg Val 430	gaa Glu 430	cct Pro	ggg Gly	tac Tyr	ccc Pro	cac His 435	agc Ser	ttg Leu	ggg Gly	gag Glu 440	ctg Leu 440	gga Gly	agc Ser	tgc Cys	ctg Leu	1406
ccc Pro 445	cgt Arg	gaa Glu	gga Gly	att Ile	gac Asp 450	aca Thr	gct Ala	ctg Leu	cgc Arg	tgg Trp 455	gaa Glu	cct Pro	gtg Val	ggc Gly 460	aaa Lys 460	1454
acc Thr	tac Tyr	ttc Phe	ttc Phe	aaa Lys 465	ggc Gly	gaa Glu	cgg Arg	tac Tyr 470	tgg Trp 470	cgc Arg	tac Tyr	agc Ser	gag Glu 475	gag Glu 475	cgg Arg	1502
cga Arg	gcc Ala	aca Thr	gac Asp 480	cct Pro	ggc Gly	tac Tyr	ccc Pro	aag Lys 485	ccc Pro	atc Ile	acc Thr	gtg Val 490	tgg Trp 490	aag Lys	ggc Gly	1550
atc Ile	ccg Pro	cag Gln 495	gct Ala	ccg Pro	caa Gln	ggg Gly	gcc Ala 500	ttc Phe	atc Ile	agc Ser	aag Lys 505	gaa Glu 505	gga Gly	tat Tyr	tac Tyr	1598
acc Thr	tac Tyr 510	ttc Phe	tac Tyr	aaa Lys	ggc Gly	cgg Arg 515	gac Asp	tac Tyr	tgg Trp	aag Lys 520	ttt Phe 520	gac Asp	aac Asn	cag Gln	aaa Lys	1646
ctg Leu 525	agc Ser	gtg Val	gag Glu	cca Pro	ggc Gly 530	tac Tyr	cca Pro	cgc Arg	aac Asn	atc Ile 535	ctg Leu	cgt Arg	gac Asp	tgg Trp	atg Met 540	1694
ggc Gly	tgc Cys	aag Lys	cag Gln	aag Lys 545	gag Glu	gta Val	gag Glu	cgg Arg	cgt Arg 550	aag Lys	gag Glu	cgg Arg	agg Arg	ctg Leu 555	ccc Pro	1742
cag Gln	gat Asp	gat Asp	gtg Val 560	gac Asp	atc Ile	atg Met	gtg Val 565	acc Thr 565	atc Ile	gat Asp	gac Asp	gtg Val 570	cca Pro 570	ggc Gly	tct Ser	1790
gtg Val	aac Asn	gct Ala 575	gtg Val	gct Ala	gtg Val	gtt Val	gtc Val 580	ccc Pro	tgc Cys	aca Thr	ctg Leu	tcc Ser 585	ctc Leu	tgc Cys	ctc Leu	1838
ctg Leu 590	gtg Val	ctg Leu	ctc Leu	tac Tyr	act Thr	atc Ile 595	ttc Phe	caa Gln	ttc Phe	aag Lys	aac Asn 600	aag Lys	gcg Ala	ggt Gly	cct Pro	1886
cag Gln 605	ccc Pro	gtc Val	acc Thr	tac Tyr	tat Tyr 610	aag Lys	cgg Arg	ccg Pro	gtc Val	cag Gln 615	gag Glu	tgg Trp	gta Val			1928
tgagcagccc	agagccctct	ctgtctaccc	ggctctggcca	gccaggccct	tcctcaccag											1988

ggtctgaggg gcagctctag ccactgcccc ctggggccag cagggctaag gcagggttcg 2048
 tgtgtagctg aagtgggtggg tgcactgggc taggctgagt gcggggctgg gagtgatggt 2108
 ggctatgccc aggttgggta gctggcacc agctgccagc cttctgtcct gggcagacct 2168
 ctctctactc aaggggaatag gccaggccct gtcaggagtc aaggatgggt ccaggagggtg 2228
 cccctgaggt cattgcatcc tgtgggtgtct gcaagatacc acagctccag tcctggctgg 2288
 gaccagccc tctgaggcaa gccagcacta gctctcacc caccccaaga tgccaccaat 2348
 cccagtcccc tctgccaaca cctgctgggc agatgtcccc tcatccctac cctactatcc 2408
 tccaaggctg cagtggccct gatgccaaca gagtgggcaa aagcctgggt ttcccctgct 2468
 agcccataga gagattcctc aggaaacctg ttccaccctg caggtctcct ctgagactca 2528
 gaacttaggg tcacatgctg caggcaaggc tgtggccagc tggatctcac aaggaccag 2588
 ctgtcatgtc gtgaatattt aaatgtcctg tcactactgt ttaaagtccc attttgcaaa 2648
 ggctacttga ggctttaggt cagctagagg tgactgtctt ggtgatgagg ccagtatggt 2708
 ggcccttccc cgggcactaa ggaccacggt gctgcaaagg ccactcgggc atcctgatac 2768
 tagcgggcat cctgttcagg aggctcaaca gctacaggag ctgaccctgg ttctgggggc 2828
 ggatgcaagt ttgtgaccat tctctactcc ccctcattaa tgttgctccc tgccctgctc 2888
 cagcctgtcc tctgtggcct gggggctcgg cctgactaca ggtaaagcag agaggattct 2948
 agagccaccc ttgtcatctt ctgagagtaa gggaccaggg cagcctttta agttctccat 3008
 ctacatcccc agtgaccctg aggcaactca gctccagcct ggagtcgggtg tttgtgctcc 3068
 tatcttgacc ctggcagccc aggtctctgg gtccatcttc ctgcactgct cttaggaaaa 3128
 gggtcctctt cccagctggg agcagcccca ggctttgggg tttcccccaa ctccctaacc 3188
 caaactacct ttttgttggt tgttttaacc tgaggccctt cttcacatct gacagttcct 3248
 aagtcttggg ttggcttgct ccaaaaccac tgggtgcaag tgtcactcac tggctctctg 3308
 ccaaacccaa cggtgggtacg aggcggccat caagggtgcta gtgggtcaca gataccaact 3368
 ctgacctctg agcctgcatg ggctttgccc ctgccctgtg gtctctcgcc ctgtagcaca 3428
 gacagagact ctgcatgccc tgggagttgt tgagtaaaat ctcttgctcc agaagcacct 3488
 atgtgggtcc actgtgtccc atctcaccat tgtgttcttg ctcatcttg ccaagggcag 3548
 gctccctggg gcaggcgggg aacaactgca gagatttagt gattcatagg tttgtacagc 3608
 gttttatact ttgcaaagca ctttattagc tcacagctgt ccactcacat gaaactcctg 3668
 taggctctga gagaggctga gggtagcact catcttacc tcagatgaag cacaaggagg 3728
 tcttattatc tgcccctgcc atccagggtg ccctggctgg gtcttggtgc cccatcagtg 3788
 ggcccttcca gggccaaga aaactgtctc ttctagtcct ctctctggg cctccctccc 3848
 ccagtcccct ggtccctctc ctgaggttgg tgctcacttc ttgaaagctc taggccccgc 3908

aggctccctg ttggctcctg gcattccaag gccagttgcg aaagagcagg ggatggaggc 3968
 aggcagccca ggctgcagat gtgagggaca cagggccggg cccagagagg gctcagccta 4028
 gaggcttcca atcttggatt cttctgcctg cggtcactctg tttgtccatc agcccagggtc 4088
 agagcagtca gaggggcaaa gtactggagc cccagagagt cagcttcccc tcggcctggg 4148
 tgacatcaca gcatctcagt gtcggtcaca ttttaaactg atcagccttt gtacaatgtt 4208
 ttttaaataca tttctaaata aaacagaaat acagtgttaa aaaaaaaaaa aaaaa 4263

<210> 8
 <211> 2620
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1935)

<400> 8
 atg ccg agg agc cgg ggc ggc cgc gcc gcg ccg ggg ccg ccg ccg ccg 48
 Met Pro Arg Ser Arg Gly Gly Arg Ala Ala Pro Gly Pro Pro Pro Pro
 1 5 10 15
 ccg ccg ccg ccg ggc cag gcc ccg cgc tgg agc cgc tgg cgg gtc cct 96
 Pro Pro Pro Pro Gly Gln Ala Pro Arg Trp Ser Arg Trp Arg Val Pro
 20 25 30
 ggg cgg ctg ctg ctg ctg ctg ctg ccc gcg ctc tgc tgc ctc ccg ggc 144
 Gly Arg Leu Leu Leu Leu Leu Leu Pro Ala Leu Cys Cys Leu Pro Gly
 35 40 45
 gcc gcg cgg gcg gcg gcg gcg gcg gcg ggg gca ggg aac cgg gca gcg 192
 Ala Ala Arg Ala Ala Ala Ala Ala Ala Gly Ala Gly Asn Arg Ala Ala
 50 55 60
 gtg gcg gtg gcg gtg gcg cgg gcg gac gag gcg gag gcg ccc ttc gcc 240
 Val Ala Val Ala Val Ala Arg Ala Asp Glu Ala Glu Ala Pro Phe Ala
 65 70 75 80
 ggg cag aac tgg tta aag tcc tat ggc tat ctg ctt ccc tat gac tca 288
 Gly Gln Asn Trp Leu Lys Ser Tyr Gly Tyr Leu Leu Pro Tyr Asp Ser
 85 90 95
 cgg gca tct gcg ctg cac tca gcg aag gcc ttg cag tcg gca gtc tcc 336
 Arg Ala Ser Ala Leu His Ser Ala Lys Ala Leu Gln Ser Ala Val Ser
 100 105 110
 act atg cag cag ttt tac ggg atc ccg gtc acc ggt gtg ttg gat cag 384
 Thr Met Gln Gln Phe Tyr Gly Ile Pro Val Thr Gly Val Leu Asp Gln
 115 120 125
 aca acg atc gag tgg atg aag aaa ccc cga tgt ggt gtc cct gat cac 432
 Thr Thr Ile Glu Trp Met Lys Lys Pro Arg Cys Gly Val Pro Asp His
 130 135 140
 ccc cac tta agc cgt agg cgg aga aac aag cgc tat gcc ctg act gga 480
 Pro His Leu Ser Arg Arg Arg Arg Asn Lys Arg Tyr Ala Leu Thr Gly
 145 150 155 160
 cag aag tgg agg caa aaa cac atc acc tac agc att cac aac tat acc 528

Gln	Lys	Trp	Arg	Gln 165	Lys	His	Ile	Thr	Tyr 170	Ser	Ile	His	Asn	Tyr 175	Thr	
cca Pro	aaa Lys	gtg Val	ggt Gly 180	gag Glu	cta Leu	gac Asp	acg Thr	cgg Arg 185	aaa Lys	gct Ala	att Ile	cgc Arg	cag Gln 190	gct Ala	ttc Phe	576
gat Asp	gtg Val	tgg Trp 195	cag Gln	aag Lys	gtg Val	acc Thr	cca Pro 200	ctg Leu	acc Thr	ttt Phe	gaa Glu	gag Glu 205	gtg Val	cca Pro	tac Tyr	624
cat His	gag Glu 210	atc Ile	aaa Lys	agt Ser	gac Asp	cgg Arg 215	aag Lys	gag Glu	gca Ala	gac Asp	atc Ile 220	atg Met	atc Ile	ttt Phe	ttt Phe	672
gct Ala 225	tct Ser	ggt Gly	ttc Phe	cat His	ggc Gly 230	gac Asp	agc Ser	tcc Ser	cca Pro	ttt Phe 235	gat Asp	gga Gly	gaa Glu	ggg Gly	gga Gly 240	720
ttc Phe	ctg Leu	gcc Ala	cat His	gcc Ala 245	tac Tyr	ttc Phe	cct Pro	ggc Gly	cca Pro 250	ggg Gly	att Ile	gga Gly	gga Gly	gac Asp 255	acc Thr	768
cac His	ttt Phe	gac Asp	tcc Ser 260	gat Asp	gag Glu	cca Pro	tgg Trp 265	acg Thr 265	cta Leu	gga Gly	aac Asn	gcc Ala 270	aac Asn 270	cat His	gac Asp	816
ggg Gly	aac Asn	gac Asp 275	ctc Leu	ttc Phe	ctg Leu	gtg Val	gct Ala 280	gtg Val	cat His	gag Glu	ctg Leu	ggc Gly 285	cac His	gcg Ala	ctg Leu	864
gga Gly 290	ctg Leu	gag Glu	cac His	tcc Ser	agc Ser	gac Asp 295	ccc Pro	agc Ser	gcc Ala	atc Ile	atg Met 300	gcg Ala	ccc Pro	ttc Phe	tac Tyr	912
cag Gln 305	tac Tyr	atg Met	gag Glu	acg Thr	cac His 310	aac Asn	ttc Phe	aag Lys	ctg Leu	ccc Pro 315	cag Gln	gac Asp	gat Asp	ctc Leu	cag Gln 320	960
ggc Gly	atc Ile	cag Gln	aag Lys	atc Ile 325	tat Tyr	gga Gly	ccc Pro	cca Pro	gcc Ala 330	gag Glu	cct Pro	ctg Leu	gag Glu	ccc Pro 335	aca Thr	1008
agg Arg	cca Pro	ctc Leu	cct Pro 340	aca Thr	ctc Leu	ccc Pro	gtc Val	cgc Arg 345	agg Arg	atc Ile	cac His	tca Ser	cca Pro 350	tcg Ser	gag Glu	1056
agg Arg	aaa Lys	cac His 355	gag Glu	cgc Arg	cag Gln	ccc Pro	agg Arg 360	ccc Pro	cct Pro	cgg Arg	ccg Pro	ccc Pro 365	ctc Leu	ggg Gly	gac Asp	1104
cgg Arg	cca Pro 370	tcc Ser	aca Thr	cca Pro	ggc Gly	acc Thr 375	aaa Lys	ccc Pro	aac Asn	atc Ile	tgt Cys 380	gac Asp	ggc Gly	aac Asn	ttc Phe	1152
aac Asn 385	aca Thr	gtg Val	gcc Ala	ctc Leu	ttc Phe 390	cgg Arg	ggc Gly	gag Glu	atg Met	ttt Phe 395	gtc Val	ttt Phe	aag Lys	gat Asp	cgc Arg 400	1200
tgg Trp	ttc Phe	tgg Trp	cgt Arg	ctg Leu 405	cgc Arg	aat Asn	aac Asn	cga Arg	gtg Val 410	cag Gln	gag Glu	ggc Gly	tac Tyr	ccc Pro 415	atg Met	1248
cag	atc	gag	cag	ttc	tgg	aag	ggc	ctg	cct	gcc	cgc	atc	gac	gca	gcc	1296

Gln	Ile	Glu	Gln	Phe	Trp	Lys	Gly	Leu	Pro	Ala	Arg	Ile	Asp	Ala	Ala		
			420					425					430				
tat	gaa	agg	gcc	gat	ggg	aga	ttt	gtc	ttc	ttc	aaa	ggt	gac	aag	tat	1344	
Tyr	Glu	Arg	Ala	Asp	Gly	Arg	Phe	Val	Phe	Phe	Lys	Gly	Asp	Lys	Tyr		
		435					440					445					
tgg	gtg	ttt	aag	gag	gtg	acg	gtg	gag	cct	ggg	tac	ccc	cac	agc	ctg	1392	
Trp	Val	Phe	Lys	Glu	Val	Thr	Val	Glu	Pro	Gly	Tyr	Pro	His	Ser	Leu		
	450					455					460						
ggg	gag	ctg	ggc	agc	tgt	ttg	ccc	cgt	gaa	ggc	att	gac	aca	gct	ctg	1440	
Gly	Glu	Leu	Gly	Ser	Cys	Leu	Pro	Arg	Glu	Gly	Ile	Asp	Thr	Ala	Leu		
465					470					475					480		
cgc	tgg	gaa	cct	gtg	ggc	aag	acc	tac	ttt	ttc	aaa	ggc	gag	cgg	tac	1488	
Arg	Trp	Glu	Pro	Val	Gly	Lys	Thr	Tyr	Phe	Phe	Lys	Gly	Glu	Arg	Tyr		
				485					490					495			
tgg	cgc	tac	agc	gag	gag	cgg	cgg	gcc	acg	gac	cct	ggc	tac	cct	aag	1536	
Trp	Arg	Tyr	Ser	Glu	Glu	Arg	Arg	Ala	Thr	Asp	Pro	Gly	Tyr	Pro	Lys		
			500					505					510				
ccc	atc	acc	gtg	tgg	aag	ggc	atc	cca	cag	gct	ccc	caa	gga	gcc	ttc	1584	
Pro	Ile	Thr	Val	Trp	Lys	Gly	Ile	Pro	Gln	Ala	Pro	Gln	Gly	Ala	Phe		
		515					520					525					
atc	agc	aag	gaa	gga	tat	tac	acc	tat	ttc	tac	aag	ggc	cgg	gac	tac	1632	
Ile	Ser	Lys	Glu	Gly	Tyr	Tyr	Thr	Tyr	Phe	Tyr	Lys	Gly	Arg	Asp	Tyr		
	530					535					540						
tgg	aag	ttt	gac	aac	cag	aaa	ctg	agc	gtg	gag	cca	ggc	tac	ccg	cgc	1680	
Trp	Lys	Phe	Asp	Asn	Gln	Lys	Leu	Ser	Val	Glu	Pro	Gly	Tyr	Pro	Arg		
545					550					555					560		
aac	atc	ctg	cgt	gac	tgg	atg	ggc	tgc	aac	cag	aag	gag	gtg	gag	cgg	1728	
Asn	Ile	Leu	Arg	Asp	Trp	Met	Gly	Cys	Asn	Gln	Lys	Glu	Val	Glu	Arg		
				565				570						575			
cgg	aag	gag	cgg	cgg	ctg	ccc	cag	gac	gac	gtg	gac	atc	atg	gtg	acc	1776	
Arg	Lys	Glu	Arg	Arg	Leu	Pro	Gln	Asp	Asp	Val	Asp	Ile	Met	Val	Thr		
			580					585					590				
atc	aac	gat	gtg	ccg	ggc	tcc	gtg	aac	gcc	gtg	gcc	gtg	gtc	atc	ccc	1824	
Ile	Asn	Asp	Val	Pro	Gly	Ser	Val	Asn	Ala	Val	Ala	Val	Val	Ile	Pro		
		595					600					605					
tgc	atc	ctg	tcc	ctc	tgc	atc	ctg	gtg	ctg	gtc	tac	acc	atc	ttc	cag	1872	
Cys	Ile	Leu	Ser	Leu	Cys	Ile	Leu	Val	Leu	Val	Tyr	Thr	Ile	Phe	Gln		
	610					615					620						
ttc	aag	aac	aag	aca	ggc	cct	cag	cct	gtc	acc	tac	tat	aag	cgg	cca	1920	
Phe	Lys	Asn	Lys	Thr	Gly	Pro	Gln	Pro	Val	Thr	Tyr	Tyr	Lys	Arg	Pro		
625					630					635				640			
gtc	cag	gaa	tgg	gtg	tgagcagccc	agagccctct	ctatccactt	ggtctggcca								1975	
Val	Gln	Glu	Trp	Val													
				645													
gccaggccct	tcctcaccag	ggtctgaggg	gcagctctgg	ccagtgtctca	ccagggccag											2035	
cagggcccta	ggctgggggtc	gtacagctga	agttgtgggt	gcattggcct	aggctgagcg											2095	
tggggcaggg	aattatgggg	gctgtgccca	gggtgggtgt	ctggcaccca	gctgccagcc											2155	

ttctgtcctg ggcaaactac tccctactta aggggaatagg ccaggctcca tccggaggca 2215
 gggaccatgc caggaggagc ccctgtgggc acggcatcct gtggtgtcca tgaggtagca 2275
 cagctccact cctggctgga acccggcacc ctctgtggga agccagcact agctctcatc 2335
 ccccatccgg gagataccac cagtcctggt ccccttttgc caacacctgc tggtcagatg 2395
 tccccctacc cccacccac tgcctccaa ggctacagga cccctgcttc tgacacagtg 2455
 agcaacaagc ctgggtttcc ctgctggcag acggcagatc cctcaggaaa cctgctccac 2515
 ttgtcagggt ctcttcggag acccaggatt tagggtcaca tgctgcaggc agggctgtgg 2575
 cccagctggg tctgacaagg acccgtgtca catcgtgaat attta 2620

<210> 9
 <211> 21
 <212> DNA
 <213> Homo sapiens

<400> 9
 GGTTCCTCTT GTTCCACTTG G 21

<210> 10
 <211> 35
 <212> DNA
 <213> Homo sapiens

<400> 10
 gtaggaattc gggttgtagg gaggtcgaca ttgcc 35

<210> 11
 <211> 23
 <212> DNA
 <213> Homo sapiens

<400> 11
 ggcaatgtcg acctccctac aac 23

<210> 12
 <211> 22
 <212> DNA
 <213> Homo sapiens

<400> 12
 ggagctgtct aaggccatca ca 22

<210> 13
 <211> 23
 <212> DNA
 <213> Homo sapiens

<400> 13
 ctccctacaa cccgaattcc tac 23

<210> 14
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 14
 cttgtgggca gatagggggc 20

<210> 15
<211> 21
<212> DNA
<213> Homo sapiens

<400> 15
cgcgccgagg acctcagcct g 21

<210> 16
<211> 21
<212> DNA
<213> Homo sapiens

<400> 16
ggttcctctt gttccacttg g 21

<210> 17
<211> 2295
<212> DNA
<213> Homo sapiens

<400> 17
aagagacaag aggtgccttg tgggcagata gggggctggg agggggcctg cccggaagca 60
gtggtggccc gtggcaggct tctcactggg taggaccggg ccctctgttg caccctctca 120
ccctgctctc tgccctcagg agtggctaag caggttcggt tacctgcccc cggctgaccc 180
cacaacaggg cagctgcaga cgcaagagga gctgtctaag gccatcacag ccatgcagca 240
gtttggtggc ctggaggcca ccggcatcct ggacgaggcc accctggccc tgatgaaaac 300
cccacgctgc tccctgccag acctccctgt cctgaccag gctcgcagga gacgccaggc 360
tccagcccc accaagtgga acaagaggaa cctgtcgttg aggggtccgga cgttcccacg 420
ggactcacca ctggggcacg acacggtgcg tgcactcatg tactacgccc tcaaggtctg 480
gagcgacatt gcgcccctga acttccacga ggtggcgggc agcaccgccg acatccagat 540
cgacttctcc aaggccgacc ataacgacgg ctacccttc gacgcccggc ggcaccgtgc 600
ccacgccttc ttccccggcc accaccacac cgccgggtac acccacttta acgatgacga 660
ggcctggacc ttccgctcct cggatgcccc cgggatggac ctgtttgcag tggctgtcca 720
cgagtttggc cagccattg ggttaagcca tgtggccgct gcacactcca tcatgcggcc 780
gtactaccag ggcccgggtg gtgaccgct gcgctacggg ctcccctacg aggacaaggt 840
gcgcgtctgg cagctgtacg gtgtgcggga gtctgtgtct cccacggcgc agcccagga 900
gcctcccctg ctgccggagc cccagacaa ccggtccagc gcccgcgcca ggaaggacgt 960
gccccacaga tgcagcactc actttgacgc ggtggcccag atccggggtg aagctttctt 1020
cttcaaaggc aagtacttct ggcggctgac gcgggaccgg cacctgggtg ccctgcagcc 1080
ggcacagatg caccgcttct ggcggggcct gccgctgcac ctggacagcg tggacgccgt 1140
gtacgagcgc accagcgacc acaagatcgt cttctttaa ggagacaggt actgggtgtt 1200
caaggacaat aacgtagagg aaggataccc gcgccccgtc tccgacttca gcctcccgcc 1260

tggcggcatc gacgctgcct tctcctgggc ccacaatgac aggacttatt tctttaagga 1320
 ccagctgtac tggcgctacg atgaccacac gaggcacatg gaccccggt accccgcca 1380
 gagccccctg tggaggggtg tccccagcac gctggacgac gccatgcgct ggtccgacgg 1440
 tgcctcctac ttcttccgtg gccaggagta ctggaaagt ctggatggcg agctggaggt 1500
 ggcacccggg taccacagt ccacggccc ggactggctg gtgtgtggag actcacaggc 1560
 cgatggatct gtggctgcgg gcgtggacgc ggcagagggg ccccgcgccc ctccaggaca 1620
 acatgaccag agccgctcgg aggacgggta cgaggtctgc tcatgcacct ctggggcatc 1680
 ctctcccccg ggggccccag gccactggt ggctgccacc atgctgctgc tgctgccgcc 1740
 actgtcacca ggcgccctgt ggacagcggc ccaggccctg acgctatgac acacagcgcg 1800
 agcccatgag aggacagagg cggtgggaca gcctggccac agagggcaag gactgtgccg 1860
 gagtccctgg gggaggtgct ggcgcgggat gaggacgggc caccctggca ccggaaggcc 1920
 agcagagggc acggcccgc agggctgggc aggctcaggt ggcaaggacg gagctgtccc 1980
 ctagtgaggg actgtgttga ctgacgagcc gaggggtggc cgctccagaa gggtgcccag 2040
 tcaggccgca ccgcccag cctcctccgg ccctggaggg agcatctcgg gctgggggcc 2100
 caccctctc tgtgccggcg ccaccaacc caccacact gctgcctggt gctcccgccg 2160
 gccacaggg cctccgtccc caggtcccca gtggggcagc cctccccaca gacgagcccc 2220
 ccacatggtg ccgcggcacg tccccctgt gacgcgttcc agaccaacat gacctctccc 2280
 tgctttgtag cggcc 2295

<210> 18
 <211> 4014
 <212> DNA
 <213> Homo sapiens

<220>
 <221> exon
 <222> (3148)..(3280)

<220>
 <221> exon
 <222> (3564)..(3633)

<400> 18
 ttctgttggg gtgtccctgg caaactagga agtggttccc accctctcac tccagcccc 60
 aagacggccc ctcccaggat gcctagcctg agatttgggg cacarcccct gagcaciaaac 120
 tcgtgttagg taggaggcac ccaccagccc tgccccacag acccaccacc cccaagatt 180
 cgatgccatt ctatgctcaa attccagtgc ctctggggc cacaggcgac agtgcctgtt 240
 tatcatgggc ggggctgcct gtcccgggct ggtgccgggg ccctgggttct atgagttgaa 300
 gcaggctggc cgctcacacc tgcaactaaa ccacctgctt ccaaacattg ggcaacattc 360
 cacagccact gggagtgcct cctgccaggc ccggctccac tttcctgaaa tgcattgtggc 420

ctcgtggcca ggctgcccag ctccctgggg accagagtgg ggggtgcccc aaaccgccac 480
cgtgaacccc acagagtaaa tgggccactc agtgcagcta ccagccatga cctcagctta 540
tagacgggaa ggctgggggg tgagttgtcc tcccaagggg tctcagcacc tgctggccca 600
acccaggcag cagctggcct ggggtgggaaa ggcacctgcc tgtgtggacc cttccctggt 660
gagggggcag ggggtcatca tccaatatca tagatgatgt gaggaaactc cagagtgcct 720
cctggaggag gtgacaggct attgtaacca tgaggcacag tggccctggt gagctgtgat 780
cttaacaaag gactaaaaag tgcagaatgt gctgatgggc atctccagca cctacagcgg 840
tgactgatca tgggacaccc tcagtaaacc ctgcagggtgc aaggtagtgt gggaccggat 900
gctcggggcc aaagatcccc acaccctgga ggtcagggcg gaagtgggag gccagcttgt 960
caaggccaag gctgtcaccc ccaaggcccc tccagagaag ctgcccaccc cagtcatgaa 1020
cgtccacttt gacgtcctgt cgtgcctata gctttggagg ggcccccagt tctgtacaca 1080
ctcttggtt cccaagggg ctgaggggct gggctgggtc agtagggttt ggaaaggggg 1140
taaaggcaca gagggggggc ccgggaagga ctcagtgcct cctggaaggg gaatctcggg 1200
gtgtgcagat cccatgtagt gtcttgtgag gcccctcctg gccagcacgs cctgttgctg 1260
atgcccctgg gacttccagg atgggtgggtc ctcatccct ctgagcactg cctgctgkgt 1320
gggcaggagg gttggccagg accaccccat caccagctcc tgcagaccag aacctggagg 1380
cccagcagggt ggcataawtg agtcacaagc attttctttt ttctttttcc tttttttttt 1440
tttaggattt ctttaaaaag ttatgttttt ttcatttatg cattttttta ggttaagcca 1500
catgaaacta ctagtattta ttttaaata gaaatgggtca aaaatgggca ctttcatatg 1560
atttggccaa tgaatacatg agagggtggt aataatagcg attcacaagc attttctaaa 1620
tgtccaggga aaaaaaaaaag acaggtttgc aggcagggca gagccccag cacatcaccc 1680
ctggcttgta cctttctgga gccgcctca cccctgctgt ggttccctgg gctggcgagt 1740
atccacaggg cagagcagca gcttcatggc agcctgcaag tgggcacagg cgccatttgg 1800
cggttgaaga aactgaagct aggggtggag gtagcccca cagatggcac ccaggcctgc 1860
catccccagg tccccacgat ggcacccagg tccccacaga tggcatccag gccccctgt 1920
ccccagggcc cctccagggt agcagagatg actggggcat ggggccaggg cttgatttat 1980
gcccaggtta aagggtgcc ctcatcctg ctctactca gctccggtgt gggtagcctt 2040
gcacccaccc cagtgggccc ttcagagcag agctgtcccc tgcgccagg gctggtgtga 2100
acattttcca cgtcctggct cacgtcctca tcaccagcct gccaaggact ctgaggaagg 2160
agcccagagg ggtggactgc cttgccccag gcacacagcg gggagggtggc tgagtgggat 2220
ttgaacctag gcagcctggc tggaacctgg cttttgtttc tgagacaggg tctcgctctg 2280
ttgcagacac agtctgcaac tcctgtgctc aaacgatcct cccgcctcag cctcccaaag 2340

tgctgggatc tcaggcataa gccacagcac cggccaagcc tgggctctta tctcccccat 2400
 gaatgtacag catggcccaa ttccttaaac tgggtgtctga gccacagcct ttctcagctg 2460
 ggggtcccaga ccttggaatgc tagacttccc tgtcacaagt cagctgagag cctgcatttg 2520
 aactggcca catttaagag ccttttgaag gttccctagc attttgcggt ctcaggaggc 2580
 gtgggggtggg gcaggggttg catgagtggg tgtacagggtc gtgcacggca caagctcaca 2640
 ccatctaagg gacatcagat ttattttatt attcattttt tagatggagt cttgctctgt 2700
 cgcccaggct ggagtgcagt ggcacgatct cggctcactg caagctccgc ctctggggtt 2760
 cccaccactc tcctgcytca gcctcccag tagctgggac tacaggcacc tgccaccaca 2820
 cccggctaata tttttgtatt tttagtagag acgggggttt accatattag ctaggatggg 2880
 ctccatctcc tgacctcatg atccgcctgc ctccggcctcc caaactgctg ggattacagg 2940
 cgtgagccac agcaccgggc cagggacatc aggtttatta agacactttt ccggcagctg 3000
 cccaggggaag agacagagag gtgccttggt ggcagatagg gggctgggag ggggcctgcc 3060
 cggaagcagt gttggcccggt ggcaggcttc tcaactgggta ggaccgggccc ctctgttgca 3120
 cccctcacc ctgctctctg ccctcaggag tggctaagca ggttcgggta cctgcccccg 3180
 gbtgaccca caacagggca gctgcagacg caagaggagc tgtctaaggc catcacagcc 3240
 atgcagcagt ttkgtggcct ggaggchacc ggcacccctg gtcagttctc cagggggcag 3300
 cgggagcgcc gtgscctccg tcaggctctgc gcccgctcggc catgccccct ctgatcaggc 3360
 acagtcccgt cttatgcttg aatgaacctg ggtcctggcc tgggtgtagct cagagcctgg 3420
 ggctgggtccc ccaaagatga cgtgggagga gggsgcggct cggaggctgg tgccagagtc 3480
 aggctcccgc ccttggggat gctcgggatc ctaggggtggg gagtgagctg ggctaggctc 3540
 tgagctccat gctttccctg cagacgaggc caccttggcc ctgatgaaaa cccacgctg 3600
 ctccctgcca gacctcccct gtcctgaccm caggtctcgc agggagacgc acaggtctcm 3660
 cagccccmm mcaagtggac acagagagga acctgtcgtg gaggtgggtg cgtggccagg 3720
 gtgaggagcg gggcctccgt ggagggtggsc gcgtggccag ggtgaggaaac ggggtctccg 3780
 tggagggtggg cgcggtggcca ggggtgggaa cggggtctcc gtggaggcgg gtgcgtggcc 3840
 aggggtgagga acaggggtctc cgtggagggtg ggcgcgtggc caggggtgggg aacgggggtct 3900
 ccgtggaggc ggggtgcgtgg ccagggtgag gagtggggcc ccatgtctc cgtgtctggg 3960
 cctgctgtag atatcaagct tatcgatacc gtcgacctcg agggggghcc gtac 4014

<210> 19

<211> 21

<212> DNA

<213> Homo sapiens

<400> 19

aatctcccat cggccctttc a

21

<210> 20
<211> 20
<212> DNA
<213> Homo sapiens

<400> 20
atgcacggcc accaggaaga 20

<210> 21
<211> 20
<212> DNA
<213> Homo sapiens

<400> 21
ggatcagaca acgatcgagt 20

<210> 22
<211> 20
<212> DNA
<213> Homo sapiens

<400> 22
cagcttgaag ttgtgcgtct 20

<210> 23
<211> 582
<212> PRT
<213> Homo sapiens

<400> 23
Met Ser Pro Ala Pro Arg Pro Ser Arg Cys Leu Leu Leu Pro Leu Leu Thr Leu
1 5 10 15
Gly Thr Ala Leu Ala Ser Leu Gly Ser Ala Gln Ser Ser Ser Phe Ser Pro Glu
20 25 30 35
Ala Trp Leu Gln Gln Tyr Gly Tyr Leu Pro Pro Gly Asp Leu Arg Thr His Thr
40 45 50
Gln Arg Ser Pro Gln Ser Leu Ser Ala Ala Ile Ala Ala Met Gln Lys Phe Tyr
55 60 65 70
Gly Leu Gln Val Thr Gly Lys Ala Asp Ala Asp Thr Met Lys Ala Met Arg Arg
75 80 85 90
Pro Arg Cys Gly Val Pro Asp Lys Phe Gly Ala Glu Ile Lys Ala Asn Val Arg
95 100 105
Arg Lys Arg Tyr Ala Ile Gln Gly Leu Lys Trp Gln His Asn Glu Ile Thr Phe
110 115 120 125
Cys Ile Gln Asn Tyr Thr Pro Lys Val Gly Glu Tyr Ala Thr Tyr Glu Ala Ile
130 135 140
Arg Lys Ala Phe Arg Val Trp Glu Ser Ala Thr Pro Leu Arg Phe Arg Glu Val
145 150 155 160
Pro Tyr Ala Tyr Ile Arg Glu Gly His Glu Lys Gln Ala Asp Ile Met Ile Phe
165 170 175 180
Phe Ala Glu Gly Phe His Gly Asp Ser Thr Pro Phe Asp Gly Glu Gly Gly Phe
185 190 195
Leu Ala His Ala Tyr Phe Pro Gly Pro Asn Ile Gly Gly Asp Thr His Phe Asp
200 205 210 215
Ser Ala Glu Pro Trp Thr Val Arg Asn Glu Asp Leu Asn Gly Asn Asp Ile Phe
220 225 230
Leu Val Ala Val His Glu Leu Gly His Ala Leu Gly Leu Glu His Ser Ser Asp
235 240 245 250
Pro Ser Ala Ile Met Ala Pro Phe Tyr Gln Trp Met Asp Thr Glu Asn Phe Val
255 260 265 270
Leu Pro Asp Asp Arg Arg Gly Ile Gln Gln Leu Tyr Gly Gly Glu Ser Gly
275 280 285
Phe Pro Thr Lys Met Pro Pro Gln Pro Arg Thr Thr Ser Arg Pro Ser Val Pro

290	Asp	Lys	Pro	Lys	Asn	Pro	Thr	Tyr	Gly	Pro	Asn	Ile	Cys	Asp	Gly	Asn	Phe	Asp
	Thr	Val	Ala	Met	Leu	Arg	Gly	Glu	Met	Phe	Val	Phe	Lys	Lys	Arg	Trp	Phe	Trp
310																		
325	Arg	Val	Arg	Asn	Asn	Gln	Val	Met	Asp	Gly	Tyr	Pro	Met	Pro	Ile	Gly	Gln	Phe
345	Trp	Arg	Gly	Leu	Pro	Ala	Ser	Ile	Asn	Thr	Ala	Tyr	Glu	Arg	Lys	Asp	Gly	Lys
365	Phe	Val	Phe	Phe	Lys	Gly	Asp	Lys	His	Trp	Val	Phe	Asp	Glu	Ala	Ser	Leu	Glu
385	Pro	Gly	Tyr	Pro	Lys	His	Ile	Lys	Glu	Leu	Gly	Arg	Gly	Leu	Pro	Thr	Asp	Lys
400	Ile	Asp	Ala	Ala	Leu	Phe	Trp	Met	Pro	Asn	Gly	Lys	Thr	Tyr	Phe	Phe	Arg	Gly
415	Asn	Lys	Tyr	Tyr	Arg	Phe	Asn	Glu	Glu	Leu	Arg	Ala	Val	Asp	Ser	Glu	Tyr	Pro
435	Lys	Asn	Ile	Lys	Val	Trp	Glu	Gly	Ile	Pro	Glu	Ser	Pro	Arg	Gly	Ser	Phe	Met
455	Gly	Ser	Asp	Glu	Val	Phe	Thr	Tyr	Phe	Tyr	Lys	Gly	Asn	Lys	Tyr	Trp	Lys	Phe
470	Asn	Asn	Gln	Lys	Leu	Lys	Val	Glu	Pro	Gly	Tyr	Pro	Lys	Ser	Ala	Leu	Arg	Asp
490	Trp	Met	Gly	Cys	Pro	Ser	Gly	Gly	Arg	Pro	Asp	Glu	Gly	Thr	Glu	Glu	Glu	Thr
505	Glu	Val	Ile	Ile	Ile	Glu	Val	Asp	Glu	Glu	Gly	Gly	Gly	Ala	Val	Ser	Ala	Ala
525	Ala	Val	Val	Leu	Pro	Val	Leu	Leu	Leu	Leu	Val	Leu	Ala	Val	Gly	Leu	Ala	
545	Val	Phe	Phe	Phe	Arg	Arg	His	Gly	Thr	Pro	Arg	Arg	Leu	Leu	Tyr	Cys	Gln	Arg
560	Ser	Leu	Leu	Asp	Lys	Val												
580																		

<210> 24
 <211> 669
 <212> PRT
 <213> Homo sapiens

<400> 24	Met	Gly	Ser	Asp	Pro	Ser	Ala	Pro	Gly	Arg	Pro	Gly	Trp	Thr	Gly	Ser	Leu	Leu
1																		
5	Gly	Asp	Arg	Glu	Glu	Ala	Ala	Arg	Pro	Arg	Leu	Leu	Pro	Leu	Leu	Leu	Val	Leu
20	Leu	Gly	Cys	Leu	Gly	Leu	Gly	Val	Ala	Ala	Glu	Asp	Ala	Glu	Val	His	Ala	Glu
40	Asn	Trp	Leu	Arg	Leu	Tyr	Gly	Tyr	Leu	Pro	Gln	Pro	Ser	Arg	His	Met	Ser	Thr
60	Met	Arg	Ser	Ala	Gln	Ile	Leu	Ala	Ser	Ala	Leu	Ala	Glu	Met	Gln	Arg	Phe	Tyr
80	Gly	Ile	Pro	Val	Thr	Gly	Val	Leu	Asp	Glu	Glu	Thr	Lys	Glu	Trp	Met	Lys	Arg
100	Pro	Arg	Cys	Gly	Val	Pro	Asp	Gln	Phe	Gly	Val	Arg	Val	Lys	Ala	Asn	Leu	Arg
120	Arg	Arg	Arg	Lys	Arg	Tyr	Ala	Leu	Thr	Gly	Arg	Lys	Trp	Asn	Asn	His	His	Leu
140	Thr	Phe	Ser	Ile	Gln	Asn	Tyr	Thr	Glu	Lys	Leu	Gly	Trp	Tyr	His	Ser	Met	Glu
160	Ala	Val	Arg	Arg	Ala	Phe	Arg	Val	Trp	Glu	Gln	Ala	Thr	Pro	Leu	Val	Phe	Gln
180	Glu	Val	Pro	Tyr	Glu	Asp	Ile	Arg	Leu	Arg	Arg	Gln	Lys	Glu	Ala	Asp	Ile	Met
200	Val	Leu	Phe	Ala	Ser	Gly	Phe	His	Gly	Asp	Ser	Ser	Pro	Phe	Asp	Gly	Thr	Gly
215																		

Gly	Phe	Leu	Ala	His	Ala	Tyr	Phe	Pro	Gly	Pro	Gly	Leu	Gly	Gly	Asp	Thr	His
			220					225					230				
Phe	Asp	Ala	Asp	Glu	Pro	Trp	Thr	Phe	Ser	Ser	Thr	Asp	Leu	His	Gly	Asn	Asn
235					240				245						250		
Leu	Phe	Leu	Val	Ala	Val	His	Glu	Leu	Gly	His	Ala	Leu	Gly	Leu	Glu	His	Ser
		255					260					265					270
Ser	Asn	Pro	Asn	Ala	Ile	Met	Ala	Pro	Phe	Tyr	Gln	Trp	Lys	Asp	Val	Asp	Asn
				275					280					285			
Phe	Lys	Leu	Pro	Glu	Asp	Asp	Leu	Arg	Gly	Ile	Gln	Gln	Leu	Tyr	Gly	Thr	Pro
290					295						300					305	
Asp	Gly	Gln	Pro	Gln	Pro	Thr	Gln	Pro	Leu	Pro	Thr	Val	Thr	Pro	Arg	Arg	Pro
			310					315					320				
Gly	Arg	Pro	Asp	His	Arg	Pro	Pro	Arg	Pro	Pro	Gln	Pro	Pro	Pro	Pro	Gly	Gly
325					330				335						340		
Lys	Pro	Glu	Arg	Pro	Pro	Lys	Pro	Gly	Pro	Pro	Val	Gln	Pro	Arg	Ala	Thr	Glu
		345					350					355					360
Arg	Pro	Asp	Gln	Tyr	Gly	Pro	Asn	Ile	Cys	Asp	Gly	Asp	Phe	Asp	Thr	Val	Ala
				365					370					375			
Met	Leu	Arg	Gly	Glu	Met	Phe	Val	Phe	Lys	Gly	Arg	Trp	Phe	Trp	Arg	Val	Arg
380						385					390					395	
His	Asn	Arg	Val	Leu	Asp	Asn	Tyr	Pro	Met	Pro	Ile	Gly	His	Phe	Trp	Arg	Gly
			400					405					410				
Leu	Pro	Gly	Asp	Ile	Ser	Ala	Ala	Tyr	Glu	Arg	Gln	Asp	Gly	Arg	Phe	Val	Phe
415					420					425					430		
Phe	Lys	Gly	Asp	Arg	Tyr	Trp	Leu	Phe	Arg	Glu	Ala	Asn	Leu	Glu	Pro	Gly	Tyr
		435					440					445					450
Pro	Gln	Pro	Leu	Thr	Ser	Tyr	Gly	Leu	Gly	Ile	Pro	Tyr	Asp	Arg	Ile	Asp	Thr
				455					460					465			
Ala	Ile	Trp	Trp	Glu	Pro	Thr	Gly	His	Thr	Phe	Phe	Phe	Gln	Glu	Asp	Arg	Tyr
	470					475				480						485	
Trp	Arg	Phe	Asn	Glu	Glu	Thr	Gln	Arg	Gly	Asp	Pro	Gly	Tyr	Pro	Lys	Pro	Ile
			490					495					500				
Ser	Val	Trp	Gln	Gly	Ile	Pro	Ala	Ser	Pro	Lys	Gly	Ala	Phe	Leu	Ser	Asn	Asp
505					510					515					520		
Ala	Ala	Tyr	Thr	Tyr	Phe	Tyr	Lys	Gly	Thr	Lys	Tyr	Trp	Lys	Phe	Asp	Asn	Glu
		525					530					535					540
Arg	Leu	Arg	Met	Glu	Pro	Gly	Tyr	Pro	Lys	Ser	Ile	Leu	Arg	Asp	Phe	Met	Gly
				545					550					555			
Cys	Gln	Glu	His	Val	Glu	Pro	Gly	Pro	Arg	Trp	Pro	Asp	Val	Ala	Arg	Pro	Pro
560					565					570					575		
Phe	Asn	Pro	His	Gly	Gly	Ala	Glu	Pro	Gly	Ala	Asp	Ser	Ala	Glu	Gly	Asp	Val
			580					585					590				
Gly	Asp	Gly	Asp	Gly	Asp	Phe	Gly	Ala	Gly	Val	Asn	Lys	Asp	Gly	Gly	Ser	Arg
595					600					605					610		
Val	Val	Val	Gln	Met	Glu	Glu	Val	Ala	Arg	Thr	Val	Asn	Val	Val	Met	Val	Leu
		615					620					625					630
Val	Pro	Leu	Leu	Leu	Leu	Leu	Cys	Val	Leu	Gly	Leu	Thr	Tyr	Ala	Leu	Val	Gln
				635					640					645			
Met	Gln	Arg	Lys	Gly	Ala	Pro	Arg	Val	Leu	Leu	Tyr	Cys	Lys	Arg	Ser	Leu	Gln
650					655						660					665	
Glu	Trp	Val															

<210> 25
 <211> 607
 <212> PRT
 <213> Homo sapiens

Met	Ile	Leu	Leu	Thr	Phe	Ser	Thr	Gly	Arg	Arg	Leu	Asp	Phe	Val	His	His	Ser
1				5				10						15			
Gly	Val	Phe	Phe	Leu	Gln	Thr	Leu	Leu	Trp	Ile	Leu	Cys	Ala	Thr	Val	Cys	Gly
	20				25				30							35	
Thr	Glu	Gln	Tyr	Phe	Asn	Val	Glu	Val	Trp	Leu	Gln	Lys	Tyr	Gly	Tyr	Leu	Pro
			40				45						50				

Pro	Thr	Asp	Pro	Arg	Met	Ser	Val	Leu	Arg	Ser	Ala	Glu	Thr	Met	Gln	Ser	Ala
55					60					65					70		
Leu	Ala	Ala	Met	Gln	Gln	Phe	Tyr	Gly	Ile	Asn	Met	Thr	Gly	Lys	Val	Asp	Arg
		75					80					85					90
Asn	Thr	Ile	Asp	Trp	Met	Lys	Lys	Pro	Arg	Cys	Gly	Val	Pro	Asp	Gln	Thr	Arg
				95					100					105			
Gly	Ser	Ser	Lys	Phe	His	Ile	Arg	Arg	Lys	Arg	Tyr	Ala	Leu	Thr	Gly	Gln	Lys
	110					115					120					125	
Trp	Gln	His	Lys	His	Ile	Thr	Tyr	Ser	Ile	Lys	Asn	Val	Thr	Pro	Lys	Val	Gly
			130					135					140				
Asp	Pro	Glu	Thr	Arg	Lys	Ala	Ile	Arg	Arg	Ala	Phe	Asp	Val	Trp	Gln	Asn	Val
145					150					155					160		
Thr	Pro	Leu	Thr	Phe	Glu	Glu	Val	Pro	Tyr	Ser	Glu	Leu	Glu	Asn	Gly	Lys	Arg
		165					170					175					180
Asp	Val	Asp	Ile	Thr	Ile	Ile	Phe	Ala	Ser	Gly	Phe	His	Gly	Asp	Ser	Ser	Pro
				185					190					195			
Phe	Asp	Gly	Glu	Gly	Gly	Phe	Leu	Ala	His	Ala	Tyr	Phe	Pro	Gly	Pro	Gly	Ile
	200					205					210					215	
Gly	Gly	Asp	Thr	His	Phe	Asp	Ser	Asp	Glu	Pro	Trp	Thr	Leu	Gly	Asn	Pro	Asn
			220					225					230				
His	Asp	Gly	Asn	Asp	Leu	Phe	Leu	Val	Ala	Val	His	Glu	Leu	Gly	His	Ala	Leu
235					240					245					250		
Gly	Leu	Glu	His	Ser	Asn	Asp	Pro	Thr	Ala	Ile	Met	Ala	Pro	Phe	Tyr	Gln	Tyr
		255					260					265					270
Met	Glu	Thr	Asp	Asn	Phe	Lys	Leu	Pro	Asn	Asp	Asp	Leu	Gln	Gly	Ile	Gln	Lys
				275					280					285			
Ile	Tyr	Gly	Pro	Pro	Asp	Lys	Ile	Pro	Pro	Pro	Thr	Arg	Pro	Leu	Pro	Thr	Val
	290					295					300					305	
Pro	Pro	His	Arg	Ser	Ile	Pro	Pro	Ala	Asp	Pro	Arg	Lys	Asn	Asp	Arg	Pro	Lys
			310					315					320				
Pro	Pro	Arg	Pro	Pro	Thr	Gly	Arg	Pro	Ser	Tyr	Pro	Gly	Ala	Lys	Pro	Asn	Ile
325					330					335					340		
Cys	Asp	Gly	Asn	Phe	Asn	Thr	Leu	Ala	Ile	Leu	Arg	Arg	Glu	Met	Phe	Val	Phe
		345					350					355					360
Lys	Asp	Gln	Trp	Phe	Trp	Arg	Val	Arg	Asn	Asn	Arg	Val	Met	Asp	Gly	Tyr	Pro
				365					370					375			
Met	Gln	Ile	Thr	Tyr	Phe	Trp	Arg	Gly	Leu	Pro	Pro	Ser	Ile	Asp	Ala	Val	Tyr
	380					385					390					395	
Glu	Asn	Ser	Asp	Gly	Asn	Phe	Val	Phe	Phe	Lys	Gly	Asn	Lys	Tyr	Trp	Val	Phe
			400				405					410					
Lys	Asp	Thr	Thr	Leu	Gln	Pro	Gly	Tyr	Pro	His	Asp	Leu	Ile	Thr	Leu	Gly	Ser
415					420					425					430		
Gly	Ile	Pro	Pro	His	Gly	Ile	Asp	Ser	Ala	Ile	Trp	Trp	Glu	Asp	Val	Gly	Lys
		435					440					445					450
Thr	Tyr	Phe	Phe	Lys	Gly	Asp	Arg	Tyr	Trp	Arg	Tyr	Ser	Glu	Glu	Met	Lys	Thr
				455					460					465			
Met	Asp	Pro	Gly	Tyr	Pro	Lys	Pro	Ile	Thr	Val	Trp	Lys	Gly	Ile	Pro	Glu	Ser
	470					475					480					485	
Pro	Gln	Gly	Ala	Phe	Val	His	Lys	Glu	Asn	Gly	Phe	Thr	Tyr	Phe	Tyr	Lys	Gly
			490					495					500				
Lys	Glu	Tyr	Trp	Lys	Phe	Asn	Asn	Gln	Ile	Leu	Lys	Val	Glu	Pro	Gly	Tyr	Pro
505					510					515					520		
Arg	Ser	Ile	Leu	Lys	Asp	Phe	Met	Gly	Cys	Asp	Gly	Pro	Thr	Asp	Arg	Val	Lys
		525					530					535					540
Glu	Gly	His	Ser	Pro	Pro	Asp	Asp	Val	Asp	Ile	Val	Ile	Lys	Leu	Asp	Asn	Thr
				545					550					555			
Ala	Ser	Thr	Val	Lys	Ala	Ile	Ala	Ile	Val	Ile	Pro	Cys	Ile	Leu	Ala	Leu	Cys
	560					565					570					575	
Leu	Leu	Val	Leu	Val	Tyr	Thr	Val	Phe	Gln	Phe	Lys	Arg	Lys	Gly	Thr	Pro	Arg
			580					585					590				
His	Ile	Leu	Tyr	Cys	Lys	Arg	Ser	Met	Gln	Glu	Trp	Val					
595					600					605							

<211> 605
 <212> PRT
 <213> Homo sapiens

<400> 26

Met	Arg	Arg	Arg	Ala	Ala	Arg	Gly	Pro	Gly	Pro	Pro	Pro	Pro	Gly	Pro	Gly	Leu
1				5					10					15			
Ser	Arg	Leu	Pro	Leu	Leu	Pro	Leu	Pro	Leu	Leu	Leu	Leu	Leu	Ala	Leu	Gly	Thr
	20					25					30					35	
Arg	Gly	Gly	Cys	Ala	Ala	Pro	Glu	Pro	Ala	Arg	Arg	Ala	Glu	Asp	Leu	Ser	Leu
			40					45					50				
Gly	Val	Glu	Trp	Leu	Ser	Arg	Phe	Gly	Tyr	Leu	Pro	Pro	Ala	Asp	Pro	Thr	Thr
55					60					65					70		
Gly	Gln	Leu	Gln	Thr	Gln	Glu	Glu	Leu	Ser	Lys	Ala	Ile	Thr	Ala	Met	Gln	Gln
		75				80						85				90	
Phe	Gly	Gly	Leu	Glu	Ala	Thr	Gly	Ile	Leu	Asp	Glu	Ala	Thr	Leu	Ala	Leu	Met
			95						100					105			
Lys	Thr	Pro	Arg	Cys	Ser	Leu	Pro	Asp	Leu	Pro	Val	Leu	Thr	Gln	Ala	Arg	Arg
	110					115					120					125	
Arg	Arg	Gln	Ala	Pro	Ala	Pro	Thr	Lys	Trp	Asn	Lys	Arg	Asn	Leu	Ser	Trp	Arg
			130					135					140				
Val	Arg	Thr	Phe	Pro	Arg	Asp	Ser	Pro	Leu	Gly	His	Asp	Thr	Val	Arg	Ala	Leu
145					150					155					160		
Met	Tyr	Tyr	Ala	Leu	Lys	Val	Trp	Ser	Asp	Ile	Ala	Pro	Leu	Asn	Phe	His	Glu
		165					170				175						180
Val	Ala	Gly	Ser	Thr	Ala	Asp	Ile	Gln	Ile	Asp	Phe	Ser	Lys	Ala	Asp	His	Asn
				185					190					195			
Asp	Gly	Tyr	Pro	Phe	Asp	Ala	Arg	Arg	His	Arg	Ala	His	Ala	Phe	Phe	Pro	Gly
	200					205					210					215	
His	His	His	Thr	Ala	Gly	Tyr	Thr	His	Phe	Asn	Asp	Asp	Glu	Ala	Trp	Thr	Phe
			220					225					230				
Arg	Ser	Ser	Asp	Ala	His	Gly	Met	Asp	Leu	Phe	Ala	Val	Ala	Val	His	Glu	Phe
235					240					245					250		
Gly	His	Ala	Ile	Gly	Leu	Ser	His	Val	Ala	Ala	Ala	His	Ser	Ile	Met	Arg	Pro
		255					260					265					270
Tyr	Tyr	Gln	Gly	Pro	Val	Gly	Asp	Pro	Leu	Arg	Tyr	Gly	Leu	Pro	Tyr	Glu	Asp
				275					280					285			
Lys	Val	Arg	Val	Trp	Gln	Leu	Tyr	Gly	Val	Arg	Glu	Ser	Val	Ser	Pro	Thr	Ala
	290					295					300					305	
Gln	Pro	Glu	Glu	Pro	Pro	Leu	Leu	Pro	Glu	Pro	Pro	Asp	Asn	Arg	Ser	Ser	Ala
			310					315					320				
Pro	Pro	Arg	Lys	Asp	Val	Pro	His	Arg	Cys	Ser	Thr	His	Phe	Asp	Ala	Val	Ala
325					330					335					340		
Gln	Ile	Arg	Gly	Glu	Ala	Phe	Phe	Phe	Lys	Gly	Lys	Tyr	Phe	Trp	Arg	Leu	Thr
		345				350						355					360
Arg	Asp	Arg	His	Leu	Val	Ser	Leu	Gln	Pro	Ala	Gln	Met	His	Arg	Phe	Trp	Arg
				365					370					375			
Gly	Leu	Pro	Leu	His	Leu	Asp	Ser	Val	Asp	Ala	Val	Tyr	Glu	Arg	Thr	Ser	Asp
	380					385					390					395	
His	Lys	Ile	Val	Phe	Phe	Lys	Gly	Asp	Arg	Tyr	Trp	Val	Phe	Lys	Asp	Asn	Asn
			400					405					410				
Val	Glu	Glu	Gly	Tyr	Pro	Arg	Pro	Val	Ser	Asp	Phe	Ser	Leu	Pro	Pro	Gly	Gly
415					420					425					430		
Ile	Asp	Ala	Ala	Phe	Ser	Trp	Ala	His	Asn	Asp	Arg	Thr	Tyr	Phe	Phe	Lys	Asp
		435					440					445				450	
Gln	Leu	Tyr	Trp	Arg	Tyr	Asp	Asp	His	Thr	Arg	His	Met	Asp	Pro	Gly	Tyr	Pro
				455					460					465			
Ala	Gln	Ser	Pro	Leu	Trp	Arg	Gly	Val	Pro	Ser	Thr	Leu	Asp	Asp	Ala	Met	Arg
	470					475					480					485	
Trp	Ser	Asp	Gly	Ala	Ser	Tyr	Phe	Phe	Arg	Gly	Gln	Glu	Tyr	Trp	Lys	Val	Leu
			490					495					500				
Asp	Gly	Glu	Leu	Glu	Val	Ala	Pro	Gly	Tyr	Pro	Gln	Ser	Thr	Ala	Arg	Asp	Trp
505					510					515					520		
Leu	Val	Cys	Gly	Asp	Ser	Gln	Ala	Asp	Gly	Ser	Val	Ala	Ala	Gly	Val	Asp	Ala

Ala	Glu	525 Gly	Pro	Arg	Ala	Pro	530 Pro	Gly	Gln	His	Asp	535 Gln	Ser	Arg	Ser	Glu	540 Asp
Gly	Tyr	Glu	Val	545 Cys	Ser	Cys	Thr	Ser	550 Gly	Ala	Ser	Ser	Pro	555 Pro	Gly	Ala	Pro
Gly	560 Pro	Leu	Val	Ala	Ala	Thr	Met	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Ser	Pro	Gly
Ala	Leu	Trp	Thr	Ala	Ala	Gln	Ala	Leu	Thr	Leu							
595					600				605								

<210> 27
 <211> 645
 <212> PRT
 <213> Homo sapiens

<400> 27

Met	Pro	Arg	Ser	Arg	Gly	Gly	Arg	Ala	Ala	Pro	Gly	Pro	Pro	Pro	Pro	Pro	Pro
1				5					10					15			
Pro	Pro	Gly	Gln	Ala	Pro	Arg	Trp	Ser	Arg	Trp	Arg	Val	Pro	Gly	Arg	Leu	Leu
	20					25				30						35	
Leu	Leu	Leu	Leu	Pro	Ala	Leu	Cys	Cys	Leu	Pro	Gly	Ala	Ala	Arg	Ala	Ala	Ala
			40					45					50				
Ala	Ala	Ala	Gly	Ala	Gly	Asn	Arg	Ala	Ala	Val	Ala	Val	Ala	Val	Ala	Arg	Ala
55			60						65					70			
Asp	Glu	Ala	Glu	Ala	Pro	Phe	Ala	Gly	Gln	Asn	Trp	Leu	Lys	Ser	Tyr	Gly	Tyr
	75					80				85						90	
Leu	Leu	Pro	Tyr	Asp	Ser	Arg	Ala	Ser	Ala	Leu	His	Ser	Ala	Lys	Ala	Leu	Gln
			95						100					105			
Ser	Ala	Val	Ser	Thr	Met	Gln	Gln	Phe	Tyr	Gly	Ile	Pro	Val	Thr	Gly	Val	Leu
	110				115					120						125	
Asp	Gln	Thr	Thr	Ile	Glu	Trp	Met	Lys	Lys	Pro	Arg	Cys	Gly	Val	Pro	Asp	His
		130						135					140				
Pro	His	Leu	Ser	Arg	Arg	Arg	Arg	Asn	Lys	Arg	Tyr	Ala	Leu	Thr	Gly	Gln	Lys
145				150						155					160		
Trp	Arg	Gln	Lys	His	Ile	Thr	Tyr	Ser	Ile	His	Asn	Tyr	Thr	Pro	Lys	Val	Gly
	165					170						175					180
Glu	Leu	Asp	Thr	Arg	Lys	Ala	Ile	Arg	Gln	Ala	Phe	Asp	Val	Trp	Gln	Lys	Val
			185					190					195				
Thr	Pro	Leu	Thr	Phe	Glu	Glu	Val	Pro	Tyr	His	Glu	Ile	Lys	Ser	Asp	Arg	Lys
	200				205					210						215	
Glu	Ala	Asp	Ile	Met	Ile	Phe	Phe	Ala	Ser	Gly	Phe	His	Gly	Asp	Ser	Ser	Pro
		220				225							230				
Phe	Asp	Gly	Glu	Gly	Gly	Phe	Leu	Ala	His	Ala	Tyr	Phe	Pro	Gly	Pro	Gly	Ile
235			240						245					250			
Gly	Gly	Asp	Thr	His	Phe	Asp	Ser	Asp	Glu	Pro	Trp	Thr	Leu	Gly	Asn	Ala	Asn
	255					260					265					270	
His	Asp	Gly	Asn	Asp	Leu	Phe	Leu	Val	Ala	Val	His	Glu	Leu	Gly	His	Ala	Leu
			275						280					285			
Gly	Leu	Glu	His	Ser	Ser	Asp	Pro	Ser	Ala	Ile	Met	Ala	Pro	Phe	Tyr	Gln	Tyr
	290					295				300						305	
Met	Glu	Thr	His	Asn	Phe	Lys	Leu	Pro	Gln	Asp	Asp	Leu	Gln	Gly	Ile	Gln	Lys
		310						315					320				
Ile	Tyr	Gly	Pro	Pro	Ala	Glu	Pro	Leu	Glu	Pro	Thr	Arg	Pro	Leu	Pro	Thr	Leu
325					330				335					340			
Pro	Val	Arg	Arg	Ile	His	Ser	Pro	Ser	Glu	Arg	Lys	His	Glu	Arg	Gln	Pro	Arg
	345						350					355				360	
Pro	Pro	Arg	Pro	Pro	Leu	Gly	Asp	Arg	Pro	Ser	Thr	Pro	Gly	Thr	Lys	Pro	Asn
			365					370					375				
Ile	Cys	Asp	Gly	Asn	Phe	Asn	Thr	Val	Ala	Leu	Phe	Arg	Gly	Glu	Met	Phe	Val
	380				385					390					395		
Phe	Lys	Asp	Arg	Trp	Phe	Trp	Arg	Leu	Arg	Asn	Asn	Arg	Val	Gln	Glu	Gly	Tyr
		400					405						410				
Pro	Met	Gln	Ile	Glu	Gln	Phe	Trp	Lys	Gly	Leu	Pro	Ala	Arg	Ile	Asp	Ala	Ala
415				420					425						430		

Tyr	Glu	Arg	Ala	Asp	Gly	Arg	Phe	Val	Phe	Phe	Lys	Gly	Asp	Lys	Tyr	Trp	Val
		435					440					445					450
Phe	Lys	Glu	Val	Thr	Val	Glu	Pro	Gly	Tyr	Pro	His	Ser	Leu	Gly	Glu	Leu	Gly
				455					460					465			
Ser	Cys	Leu	Pro	Arg	Glu	Gly	Ile	Asp	Thr	Ala	Leu	Arg	Trp	Glu	Pro	Val	Gly
	470					475					480					485	
Lys	Thr	Tyr	Phe	Phe	Lys	Gly	Glu	Arg	Tyr	Trp	Arg	Tyr	Ser	Glu	Glu	Arg	Arg
			490					495					500				
Ala	Thr	Asp	Pro	Gly	Tyr	Pro	Lys	Pro	Ile	Thr	Val	Trp	Lys	Gly	Ile	Pro	Gln
505					510					515					520		
Ala	Pro	Gln	Gly	Ala	Phe	Ile	Ser	Lys	Glu	Gly	Tyr	Tyr	Thr	Tyr	Phe	Tyr	Lys
		525					530					535					540
Gly	Arg	Asp	Tyr	Trp	Lys	Phe	Asp	Asn	Gln	Lys	Leu	Ser	Val	Glu	Pro	Gly	Tyr
				545					550					555			
Pro	Arg	Asn	Ile	Leu	Arg	Asp	Trp	Met	Gly	Cys	Asn	Gln	Lys	Glu	Val	Glu	Arg
	560					565					570					575	
Arg	Lys	Glu	Arg	Arg	Leu	Pro	Gln	Asp	Asp	Val	Asp	Ile	Met	Val	Thr	Ile	Asn
			580					585					590				
Asp	Val	Pro	Gly	Ser	Val	Asn	Ala	Val	Ala	Val	Val	Ile	Pro	Cys	Ile	Leu	Ser
595					600					605					610		
Leu	Cys	Ile	Leu	Val	Leu	Val	Tyr	Thr	Ile	Phe	Gln	Phe	Lys	Asn	Lys	Thr	Gly
		615					620					625					630
Pro	Gln	Pro	Val	Thr	Tyr	Tyr	Lys	Arg	Pro	Val	Gln	Glu	Trp	Val			
				635					640					645			

<210> 28
 <211> 618
 <212> PRT
 <213> Mouse

<400> 28																	
Met	Pro	Arg	Ser	Arg	Gly	Gly	Arg	Ala	Ala	Pro	Gly	Gln	Ala	Ser	Arg	Trp	Ser
1				5					10					15			
Gly	Trp	Arg	Ala	Pro	Gly	Arg	Leu	Leu	Pro	Leu	Leu	Pro	Ala	Leu	Cys	Cys	Leu
	20					25				30					35		
Ala	Ala	Ala	Ala	Gly	Ala	Gly	Lys	Pro	Ala	Gly	Ala	Asp	Ala	Pro	Phe	Ala	Gly
			40					45					50				
Gln	Asn	Trp	Leu	Lys	Ser	Tyr	Gly	Tyr	Leu	Leu	Pro	Tyr	Glu	Ser	Arg	Ala	Ser
55				60						65					70		
Ala	Leu	His	Ser	Gly	Lys	Ala	Leu	Gln	Ser	Ala	Val	Ser	Thr	Met	Gln	Gln	Phe
		75				80						85					90
Tyr	Gly	Ile	Pro	Val	Thr	Gly	Val	Leu	Asp	Gln	Thr	Thr	Ile	Glu	Trp	Met	Lys
				95					100					105			
Lys	Pro	Arg	Cys	Gly	Val	Pro	Asp	His	Pro	His	Leu	Ser	Arg	Arg	Arg	Arg	Asn
	110					115					120				125		
Lys	Arg	Tyr	Ala	Leu	Thr	Gly	Gln	Lys	Trp	Arg	Gln	Lys	His	Ile	Thr	Tyr	Ser
			130					135					140				
Ile	His	Asn	Tyr	Thr	Pro	Lys	Val	Gly	Glu	Leu	Asp	Thr	Arg	Lys	Ala	Ile	Arg
145					150					155					160		
Gln	Ala	Phe	Asp	Val	Trp	Gln	Lys	Val	Thr	Pro	Leu	Thr	Phe	Glu	Glu	Val	Pro
		165				170						175					180
Tyr	His	Glu	Ile	Lys	Ser	Asp	Arg	Lys	Glu	Ala	Asp	Ile	Met	Ile	Phe	Phe	Ala
				185					190					195			
Ser	Gly	Phe	His	Gly	Asp	Ser	Ser	Pro	Phe	Asp	Gly	Glu	Gly	Gly	Phe	Leu	Ala
	200				205					210					215		
His	Ala	Tyr	Phe	Pro	Gly	Pro	Gly	Ile	Gly	Gly	Asp	Thr	His	Phe	Asp	Ser	Asp
			220					225					230				
Glu	Pro	Trp	Thr	Leu	Gly	Asn	Ala	Asn	His	Asp	Gly	Asn	Asp	Leu	Phe	Leu	Val
235					240					245					250		
Ala	Val	His	Glu	Leu	Gly	His	Ala	Leu	Gly	Leu	Glu	His	Ser	Asn	Asp	Pro	Ser
		255					260					265					270
Ala	Ile	Met	Ala	Pro	Phe	Tyr	Gln	Tyr	Met	Glu	Thr	His	Asn	Phe	Lys	Leu	Pro
				275					280					285			
Gln	Asp	Asp	Leu	Gln	Gly	Ile	Gln	Lys	Ile	Tyr	Gly	Pro	Pro	Ala	Glu	Pro	Leu

